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Misplaced Pregnancy, with Report of a Case.

Unlike most other diseases of women, misplaced pregnancy generally comes to the physician as an emergency, demanding prompt and radical treatment. In the vast majority of cases it first falls into the hands of the family doctor, whose duty it is not only to make a diagnosis, but not infrequently also to operate, and that on the spur of the moment. I feel, therefore, that no apology is needed in submitting to your consideration a condition which, because of its difficulties, both of diagnosis and of treatment, would seem rather to belong to the field of the specialist than to that of the general practitioner.

Mrs. B——, of fairly good previous health, 35 years of age, the mother of two children, aged 14 and 16 respectively; has had several abortions, the last about three months ago; menstruated last, December 3, 1893. Had been ailing slightly for a few days, and Wednesday morning, January 17, 1894, on getting up was seized with severe but indefinite distress in the right hypochondrium, followed by nausea and vomiting. I found her abed with a normal temperature, pulse 108, and of moderate volume and strength. I prescribed a sixteenth of morphin half hourly as necessary. This was soon followed by relief of pain, but nausea and occasional vomiting continued during the day. Craving for unwonted foods and the peculiar nausea aroused the suspicion of pregnancy. On the 29th a sanguinolent uterine discharge, which the patient regarded as menstuation, set in and continued until the 31st. She was relieved mentally but not physically. The temperature remained normal, the pain ceased, but anorexia increased daily until both foods and drinks were absolutely refused, and the urinary secretion was reduced to two ounces in the 24 hours. Entreaty and command were unavailing; resort to strategy was suggested by the fact that the patient took her medicines seemingly as a religious duty. Powders were ordered to be taken hourly with milk. The ruse worked admirably, and what promised to be a case of pernicious anorexia of pregnancy began to improve at once, and on the 10th of February seemed fully convalescent. At 3:30 P. M. of the 11th Mrs. B. was suddenly seized with violent abdominal pain, for which I was summoned in haste. I reached the bedside a half hour later and found her faint, blanched, and with a pulse barely perceptible at the wrist.

Diagnosis of rupture of tubal pregnancy was made at once and confirmed by the presence of a boggy mass in Douglas' *cul-de-sac*, and of a denser, more resistant mass on the left of the uterus and presumably in the left tube. At 5 P. M. Drs. Simmons, Huntington, and Sutliff concurred in the diagnosis and the necessity of immediate operation. As it was proposed to perform transfusion and celiotomy simultaneously another assistant was needed, and Mr. Peters, of the Railroad Hospital, was procured to administer the anesthetic. Fearing an accident from the imperfection of our apparatus for transfusion, Drs. Huntington and Sutliff injected 20 ounces of normal saline solution into the thighs, and a somewhat larger quantity into the rectum, while Dr. Simmons and myself opened the abdomen and removed the ruptured tube. A large quantity of blood, partly fluid and partly coagulated, filled the pelvis, insinuated itself between the folds of intestine and crowded them upward. The uterus was enlarged in both diameters. The right tube and ovary were normal. The patient held up unexpectedly well, her pulse improving considerably during the operation—probably on account of the saline injections. The highest temperature following the operation was 100.5° F., in consequence of a small abscess developing at the site of one of the intra-cellular injections. The stitches were removed on the eighth day, union was perfect, and the subsequent history of the case uneventful.

The ratio of misplaced to normal pregnancy is said to be, approximately, 1:500. My own observations correspond with this statement. In about 1,500 pregnancies I have seen four ectopic gestations; the first, in consultation with Dr. G. A. White, after full development in the abdominal cavity, and verified by autopsy; the second diagnosticated before rupture, treated successfully by electricity and previously reported; the third, after rupture and partial development in the broad ligament; and the fourth, at the time of rupture as reported in the present paper. If other cases have occurred in my practice they have been unrecognized. Dr. Joseph Price has had 83 misplaced pregnancies in 8,000 gestations—a ratio of 1:100, probably greatly above the normal ratio, because of his eminence as an operator and his consequently large consultation practice. In a series of 3,500 general autopsies, Formad demonstrated 35 misplaced pregnancies, which means that the physician who has seen a hundred deaths has seen a case of ectopic gestation.

The causes of misplacement of the ovum are obscure. Tait believes them to be chiefly those conditions that obstruct the lumen of the tubes and denude the tubal mucosa of its epithelium—that is, stenosis of the tubes and inflammation of their mucosa. These conditions of the uterus assuredly hinder, if they do not prevent, normal pregnancy. Why, when present in the tubes, should they favor tubal pregnancy? The obstacle that delays the progress of the ovum toward the uterus likewise delays the progress of the spermatozoa toward the ovary, and would, therefore, hinder fecundation not only in the uterus, but in the tubes also, and infection of the mucosa would seem hardly to favor those healthy and active nutritive processes so essential to impregnation. The answer to the question just propounded is to be found perhaps in the fact that enfeeblement or destruction of the vibratile epithelium of the tubes not only delays the onward movement of the ovum, but also facilitates the outward migration of the spermatozoa, and thus promotes both tubal fecundation and tubal impregnation. Martin, on the other hand, believes that fecundation, which generally takes place in the uterus, arrests the progress of the ovum—impregnation occurring at the site of fecundation. Occasionally, however, the spermatozoa make their way into the tube and there meet the ovum and fecundate it. In support of this view Martin adduces the fact that in seven cases, in which very early rupture took place, no evidence whatever of pelvic peritonitis was to be found. He concludes, therefore, that pelvic inflammation is a result and not the cause of misplaced pregnancy.

The classification of misplaced pregnancies has been the subject of considerable controversy. In obedience to considerations partly etiological, partly physiological, and partly pathological, the possibility of primary abdominal pregnancy has been denied, and the existence of ovarian pregnancy has been called in question. So far, however, the evidence seems to indicate the extreme rarity of primary abdominal pregnancy rather than its inherent impossibility. Undoubtedly the dead ovum would be digested in the peritoneal cavity, but the living fecundated ovum, like other microörganisms, might survive, and, like an independent proligerating cyst, might attach itself to surrounding structures and continue its development. Meeting of the ovum and spermatozoon, and consequent fecundation in the peritoneal cavity in any given case, might be extremely unlikely, and yet by no means impossible. Misplaced pregnancy, therefore, may be divided into primary and secondary; the primary forms may be divided into tubal, ovarian, and abdominal; tubal pregnancy may be subdivided into tubo-uterine, tubal proper, and tubo-ovarian, and the secondary forms may be divided into abdominal and intraligamentous. In the very large majority of cases misplaced pregnancy is primarily tubal. Rupture of the tube ends either in death of the fetus or in its continued growth, as one of the secondary forms of ectopic gestation, either intraligamentous or abdominal.

In a previous paper I have said that in the early months of ectopic pregnancy, we find all of the usual signs of early pregnancy modified by the absence of the fetus from the uterus, and its presence either in the tube or in the abdominal cavity. Menstruation is generally either missed or delayed, the uterus softens and enlarges, the areolæ darken, Montgomery's glands develop and the peculiar nervous symptoms of pregnancy follow. So far, perhaps, we have the clinical history of a normal pregnancy, but soon anomalous pelvic symptoms arise—recurrent uterine hemorrhage, the discharge of decidua, rectal and vesical irritation, paroxysmal pelvic pain accompanied by the evidences of inflammation and finally of internal hemorrhage. Rupture with shock and collapse may occur without previous irregular symptoms or previous indications of pregnancy.

In arriving at a diagnosis of misplaced pregnancy, three points are to be determined: the existence of pregnancy; the absence of the fetus from the uterus; its presence in an abnormal situation. Misplaced pregnancy is frequently preceded by a considerable period of sterility. In the early months before rupture it is attended by the ordinary symptoms of normal pregnancy only, or, by these symptoms plus one or more of the anomalous pelvic symptoms already mentioned. These symptoms should lead to a careful bimanual examination. The uterus will be found softened, enlarged, and displaced more or less, either laterally or anteriorly, according to the size and situation of the misplaced ovum. If pregnancy has advanced beyond the second month, however, the uterus will not be correspondingly enlarged. The sound should not be used, because its evidence of the vacuity of the uterus is untrustworthy, and because, if uterine pregnancy exists, abortion may thus be induced. Oftentimes we shall have to be content with the inference rather than the proof that the uterus is empty. This we can safely do when the development of the uterus does not correspond with the probable period of gestation, the decidua is free from chorionic villi, and there exists in the uterine appendages a rapidly growing, tender, pulsating, and elastic tumor of the proper size, which may be differentiated from hydrosalpynx, pyosalpynx, pelvic abscess, and the various pelvic neoplasms.

In the early months after rupture, in addition to the symptoms already detailed, we shall have sudden excruciating pain in one side of the pelvis, generally low down, accompanied by shock and the symptoms of acute internal hemorrhage. If rupture takes place into the peritoneal cavity, there will be the local evidences of pelvic hematocele; if into the broad ligament, the local evidences of pelvic hematoma.

In the later months we may elicit the early history of misplaced pregnancy, followed by rupture; the uterus, insufficiently developed, may be distinguished from the fetal tumor; the fetal movements and heart tones are more distinct than in utero-gestation, and the fetal members more superficial.

The differential diagnosis between tubal pregnancy and pregnancy in the rudimentary horn of a partially or completely double uterus is difficult, but unimportant, since both these conditions demand similar treatment. Pelvic neoplasms and the products of inflammation, when unassociated with pregnancy, are to be differentiated by the absence of the signs of this condition; when associated with pregnancy, by the slower growth of the neoplasms and their slighter sensibility and painfulness, by the greater diffuseness of inflammatory exudates, by the slower growth of hydro- and pyosalpynx, and by the greater continuity of their symptoms; when associated with abortion, by the differential symptoms already mentioned, and by the presence of the fetus and of chorionic villi in the uterine discharges. Retroversion, retroflexion, and lateral deviations may be differentiated by correction of the displacement, or by very thorough bimanual examination.

The prognosis of misplaced pregnancy when promptly recognized and properly treated is favorable, the death rate not exceeding 5 per cent.; when unrecognized or left to the unaided efforts of nature, it is unfavorable, the death rate reaching 65 or 70 per cent.

The treatment, like the diagnosis, may be divided into that in the early months before rupture, that in the early months after rupture, into the peritoneal cavity and into the broad ligament, and that in the later months. In the early months, before rupture, electricity has many advocates. The fetus is destroyed, preferably by the galvanic current, and its absorption left to nature. Numerous successful cases have been reported, among them one by myself. The chief objection to electricity is that it leaves the ovum as a foreign body and the possible source of subsequent trouble. As yet statistics of electrical treatment are not sufficiently large, and perhaps not sufficiently trustworthy, to enable us to pronounce a final opinion on its merits. Personally I feel that, in selected cases, a resort to electricity is certainly justifiable, particularly by those who are more familiar with electrical than with surgical *technique*. Immediate removal is preferred by the great majority of those who have most to do with these cases. Its risks are small and its results definitive. It leaves no cloud either on the patient's health or on her life. In the early months after rupture into the peritoneal cavity, immediate removal is imperative. In urgent cases the tube should be reached and tied as quickly as possible, while assistants transfuse a normal saline solution or inject it into the cellular tissue or the rectum. Seemingly desperate cases may be saved in this way.

In the early months after rupture into the broad ligament, the treatment is usually expectant. The patient should be kept perfectly quiet; pressure by sand-bags or cold by iced compresses may be applied to the abdomen, and later, when bleeding has ceased, large hot-water douches may be employed. By this treatment, in the majority of cases, the bleeding will be arrested and the blood will be absorbed. If pus forms, it produces a pelvic abscess, which should be treated as other pelvic abscesses, by vaginal incision, irrigation, and drainage. If blood accumulates from repeated hemorrhages, it may be removed in the same way, or if it extends well up in the pelvis, by abdominal incision. If the fetus survives it may be either destroyed by electricity or be permitted to continue its development to maturity.

In the later months, if the fetus is dead it should be allowed to remain, if possible, until the placental vessels have been obliterated—two or three months, if indications for interference do not sooner arise. It should then be removed, with the placenta and membranes. If the fetus be living, its development to maturity does not materially endanger the life of the mother. This should therefore be permitted, the patient being meanwhile under the closest observation. When she has reached full term, an incision should be made well beyond the median line of the side corresponding with the pregnancy, the fetal sac opened, the fetus extracted, the sac stitched to the abdominal wall, packed with iodoform gauze and kept in the most thoroughly aseptic condition until the placenta loosens and is removed.

ONE OF THE CAUSES OF FREQUENT MICTURITION IN THE FEMALE.

By N. ROSENCRANTZ, M.D., San Francisco, Cal.

Read before the California Academy of Medicine.

M. B——, native of Pennsylvania; æt. 46; teacher; widow, no children; has had one miscarriage; father healthy; mother died of consumption at the age of 30. Patient's health excellent until 1875, though having lived where malaria and ague were prevalent. About 1882 she experienced severe pain during the first day of a menstrual period, having, at the same time, a "desire" to urinate frequently. During the following two weeks she voided a few drops of water every few minutes. This was relieved by spirits of niter.

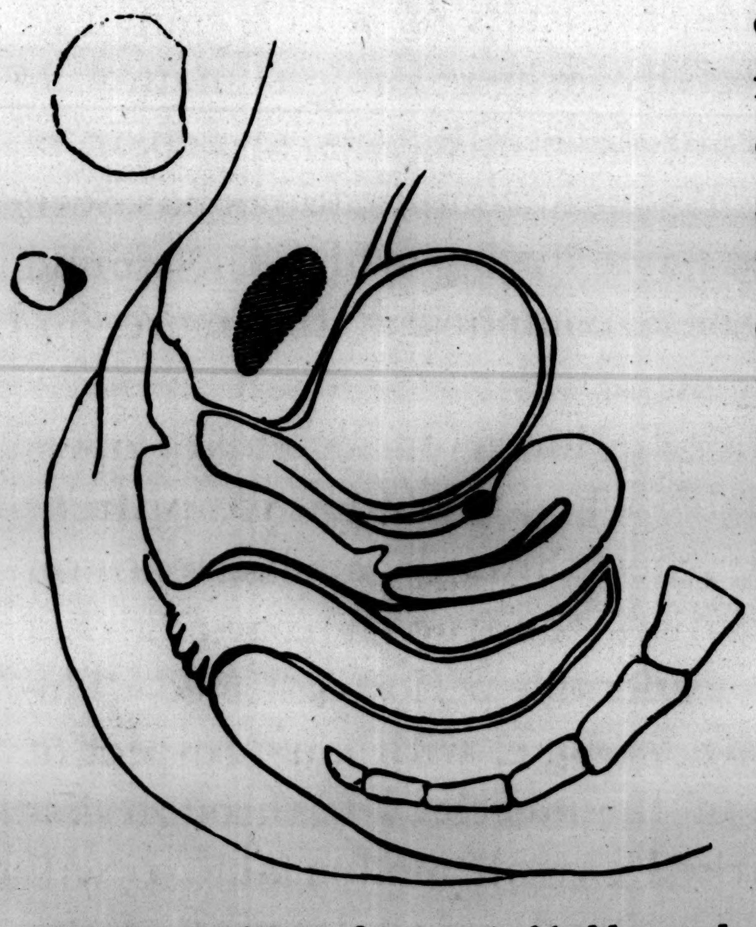
In 1886 she decided to undergo the "Rest Cure," but the symptom of frequent micturition did not ameliorate. During the year 1892, and up to the present time, patient would urinate almost incessantly, voiding a few drops at a time, and would always have present a "desire to pass water." During the night her sleep would be disturbed ten or fifteen times by getting up to urinate. She suffered a great deal of discomfort and vexation from the frequent passage of water. The necessity of voiding urine had grown to become very urgent, and, as a consequence, was a great source of annoyance, owing to its indelicacy. If patient was invited to visit any of her acquaintances, she would accept unwillingly and reluctantly, but would go only on one condition, and that was a *pot de chambre* would be in the adjoining room. Patient felt so miserable that life was a burden to her. She had never observed blood in the urine, and never experienced any pain.

Several irregular practitioners were consulted. One of these diagnosed Bright's disease, and ordered an antinephritic diet, and another of the learned gentlemen discovered sugar in the urine, and informed the patient daily of the percentage of glucose present. Patient suffered considerably from severe headaches. A prominent oculist ordered glasses, and said the "pain did not originate from her nose." The glasses did not relieve the pain.

On July 8, 1894, she consulted me regarding her urinary organs. She informed me of the excessive urination, and asked for immediate relief, as the symptom was unbearable and disgusting.

Examination.—Urine, sp. gr., 1015. Light amber color. No albumin or sugar present. A sound was passed into the bladder, but no calculus could be found. Cystoscopic examination was not carried out, as there was absolutely no indication for it. Examination of the vagina demonstrated a very small, immovable enlargement on the anterior surface of the uterus directly above the cervix, which was pressing upon the base of the bladder. It could not be easily determined whether the tumor had its origin from the bladder or from the uterus.

Upon discovering this foreign body, I at once advised her to undergo a laparotomy, which she took under consideration. Three days later patient entered German Hospital, where Dr. Max Salomon confirmed my diagnosis. July 11. After the necessary antiseptic and aseptic precautions were taken I made an exploratory incision, and,



Relative position of tumor to bladder and uterus, with fibroids removed (actual size), shown above.

as previously mentioned, a small fibroid, the size of a marble, was enucleated from the uterus, also a very small one the size of a pea. No mishaps were experienced in the after-treatment. Patient left the hospital ten days after operation entirely cured. She now urinates five times during 24 hours. Her sleep is not disturbed, and the headaches have entirely disappeared.

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TENORRAPHY, WITH A REPORT OF FOUR CASES.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

Read before the California Northern District Medical Society.

The advent of clean surgery rendered reunion of tendons, severed accidentally, or divided purposely during surgical procedures, a possibility. During the long period which preceded this era, trifling injuries involving the integrity of tendons, resulted almost invariably in the permanent crippling of a limb or member. Such disability was always humiliating, and often times wholly out of proportion to the apparent importance of the lesion.

The necessity for absolutely aseptic conditions in dealing with these structures is self evident. The synovial sheaths are a favorite soil for the production of septic germs. Inflammation due to the implantation of germs runs a rapid and destructive course. Such a process not only forms a positive bar to union, but is often fatal to the life of the tendon itself.

In dealing with accidental wounds, the state of which cannot at first be definitely determined, especially when foreign matter is deposited in the tissues, it is proper to defer attempts at repair of tendon injuries until the probability of septic complications has been eliminated; a delay of two or three days, during which the wound is rendered surgically clean, in no sense complicates the more important step of tendon suture.

Tenorraphy may be done either as a primary or secondary operation; the former is of course applicable when the lesion is apparent at the time of the injury; the latter, when through inadvertence on the part of the patient or his attendant, the true state of affairs is not discovered until the lapse of a considerable period of time. The limit of time within which repair may be done, with fair prospect of success, depends upon the condition of the muscle. If through disuse it has become atrophied to a marked extent, tendon suture will barely be worth the effort. On the other hand, separation of the ends of the fragments is not an altogether discouraging feature, as I shall illustrate later on.

The *technique* of the operation is ordinarily simple. Admitting the establishment of aseptic conditions in the wound and its environments, the requirements are to uncover and approximate the cut ends and maintain apposition by the adjustment of one or more fine sutures, either of silk, chromicised gut, or what is probably superior to either, kangaroo tendon. The external wound is then closed, with adequate provision for drainage, if there be an appreciable amount of oozing. After a careful dressing has been applied, the limb should be confined upon a splint and bandaged snugly. During the following ten days, rest in bed should be strictly enjoined. To overlook this requirement is but to offer a premium for ill-success, as every contraction, whether voluntary or involuntary, of the muscle implicated retards progress and interrupts the process of repair.

The distal end of the tendon is usually located with ease, but owing to contraction of the muscle, a careful search will often be required to find the proximal end. In primary operations, the tendon sheath will form a valuable guide to the surgeon, but when considerable time has elapsed since the injury, the operator must depend in the main upon anatomical landmarks. Under the latter conditions it will be necessary to remove a section from each fragment before suturing.

When a portion of the tendon has been lost, as in some gun-shot and circular-saw injuries, approximation of the fragments without inordinate tension may be found impossible. The same difficulty is often met with during late secondary operations where permanent contraction has carried the proximal fragment far from its fellow. To obviate this difficulty and to fill in the interspace, tendon splitting has been resorted to successfully. This is accomplished by uncovering the longer, but preferably the upper and larger portion of the tendon for a sufficient distance. Then beginning at a point distant from the end a trifle farther than the length of the interspace, the knife is made to enter the tendon from its side, splitting it longitudinally to a point near its cut end. Thus a slip of tendon tissue is found attached only at the extremity; this slip or graft is then reversed, the free end being united to the distal end, thereby reëstablishing connection.

The results of this ingenious plan have been such as to meet the approval of many observers. It is even claimed that closure of such an interval by a mere shred of tendinous material is followed by a deposit of new tissue, which renders the union thoroughly secure.

The method adopted for prolongation of a contracted tendon where tenotomy is contemplated is also efficient and satisfactory. In such cases the tendon should be uncovered, and beginning at one end of the incision the knife is to be carried across its fibers to the middle point. The tendon is then split longitudinally for an inch or more according to the requirements of the case, and the remaining half of the tendon is divided at the opposite end of the incision. The affected member is then forciby extended and the ends of the two half sections of the tendon sutured in the usual manner. The subsequent management of such cases should be conducted with special reference to the maintenance of protracted extension of the parts, in order that proper alignment of the tendon may be secured during repair of the operative wound.

The following cases admirably illustrate the value of tenorraphy, as a surgical procedure:

CASE 1. O. A——, a lad of four years sustained an incised wound over the left tendo-Achilles. The skin wound was sutured by a physician who then lost sight of the case. Union of the skin was completed in a few days; about six weeks later the child was again taken to the same physician, because of serious impairment to the foot and ankle. It was then discovered that the tendo-Achilles had been severed, and that there was the interval of fully an inch between the cut ends. The case was referred to me and I determined to attempt repair of the injury. Accordingly on May 27, 1891, under ether, I made a longitudinal incision down to the tendon and readily exposed both ends; from each of which a small portion was removed with a knife. No difficulty was experienced in approximating the cut surfaces, and they were held together by two medium-sized silk sutures. The skin wound was closed and after a careful dressing had been adjusted, the limb was confined upon a posterior splint. Eight days later, union in the external wound was perfect. The child began to walk at the end of the third week, and at the present time his gait gives no intimation of any defect.

CASE 2. F. A——, æt. 35, by occupation a tailor. February 25, 1894, while standing erect in a stationary wash-bowl, the bowl gave way letting him through the bottom; at the same time he fell backward bringing the dorsal surfaces of both feet against the sharp edge of the broken porcelain. He sustained an extensive irregular lacerated skin wound, reaching across the entire right foot below the annular ligament. The dorsalis pedis artery was divided, profuse hemorrhage resulting. The ankle joint was freely opened at two points, and the following tendons were divided: the four branches of the extensor longus digitorum, the tibialis anticus, extensor proprius pollicis, and the peroneus tertius. Thus there were in the aggregate seven tendons involved in the injury. The artery was ligated immediately; three hours later ether was administered, and the various tendons reunited with silk sutures. The operation was done with the strictest regard for asepticity. The wound was healed externally at the end of a week, and the patient was allowed to move about on crutches in three weeks. One month after the injury, there was perfect voluntary movement in the ankle joint; toe motion only slightly impaired, and the general condition of the foot was excellent. Now, more than seven months from the operation, the patient walks with a firm, elastic tread, and with barely a suspicion of a limp. I fully believe, at the end of one year, he will suffer no inconvenience whatever.

CASE 3. R. C. J——, æt. 35, by occupation a machinist. September 29, 1894, was struck on the radial aspect of the right wrist by a sliver of iron in rapid motion. The radial artery and the tendons of the extensor ossis metacarpi pollicis, and the extensor primi internodii pollicis muscles were divided. My assistant, Dr. Henderson, ligated the artery and recognizing further lesions applied a temporary dressing. On the following day, I united the several tendons with fine silk, closed the skin wound, and laid the limb upon a palmar splint. This is the tenth day since the operation, the skin wound has gone on to perfect repair, and there is no doubt that union of the tendons is progressing rapidly.

The fourth and last case illustrates the method now in vogue for prolongation of contracted tendon together with tendon suture.

CASE 4. T. N——, a lad aged eleven years. For six months prior to the operation, he had been under my care on account of "griffin fingers." This condition had followed a fracture of both bones of the forearm, together with injury to important nerve trunks. After exhausting my skill and ingenuity in efforts to restore the limb to usefulness, the condition of the hand remained most unsatisfactory. Voluntary flexion of the fingers was possible to a considerable degree, but extension was greatly impeded by permanent contraction of the flexor sublimis digitorum. I accordingly uncovered this tendon above the annular ligament and divided it by cutting it one-half across, then carrying the knife along its center longitudinally for an inch the section was completed. This left two attenuated portions of the tendon to be reunited in such manner as to permit of the greatest possible extension of the fingers. It would have been advisable to have treated similarly the tendons of the flexor carpi radialis, and the flexor profundus digitorum, but as the patient took ether badly, and developed alarming symptoms during the operation, further interference was out of the question. Notwithstanding these conditions the wound healed quickly and the present condition of the hand is improved to a marked extent.

In conclusion, it may be regarded as an aphorism that in primary cases, tendon suture should be an essential, routine measure, resort being had to it as often as the conditions are present. Secondary operations, however, as no positive assurance of success can be given, should, in the main, be left to the discretion of the patient or his representative.

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DIABETES MELLITUS.

By A. E. **Brune**, M.D., San Francisco, Cal.

Read before the San Francisco Medico-Chirurgical Society.

Diabetes mellitus depends upon a disorder of nutrition, manifested by an excessive accumulation of sugar in the blood, and its continuous discharge by the kidneys. It is an independent, idiopathic disease, and must be distinguished from symptomatic diabetes, in which there is only a temporary excretion of sugar. The latter condition is usually called glycosuria, and is regarded merely as a sympton of various affections. It may be observed after ingestion of large quantities of saccharine or farinaceous food; during convalescence from infectious diseases; after poisoning with carbon oxide (illuminating gas); and is associated with great mental anxiety.

Idiopathic diabetes is a disease of comparatively infrequent occurrence. No age is exempt; it has been observed even in infancy. It, however, most commonly develops between the ages of twenty to fifty years. In regard to the real nature of the disease, many theories have been advanced, but none of them find undivided support. It is, however, generally admitted, that the disease stands in some close relation to the glycogenic function of the liver.

The presence of sugar in excess in the blood, and its excretion by the kidneys, has been theoretically explained in various ways. The following are some of the theories, supported by eminent writers:

1. That it is due to disturbance of cerebral innervation, the starting point being found in the floor of the fourth ventricle, the liver being regarded as a sugar-producing organ, under the control of the sympathetic nervous system. According to this theory, vasomotor disturbances in the hepatic circulation may result in diabetes mellitus.

2. That the function of the liver-cells may be impaired to such an extent, that they are unable to convert completely into glycogen the sugar which is conveyed to them from the food through the portal vein. It is supposed that the excess of sugar passes into the hepatic veins, and thus into the general circulation.

3. That the glycogen of the liver, instead of being stored in the liver, enters the circulation in excess, thereby producing symptoms of diabetes, and passes out with the urine, without being utilized.

4. That there is a defective assimilation of glycogen in the system; that, instead of being further converted and utilized, it remains circulating in the blood.

5. That the action of the liver being destroyed, the sugar is not

converted into glycogen, but enters the blood in such a form that it cannot undergo further changes.

No doubt, nearly every case of idiopathic diabetes can be explained by one or the other of these theories, yet not one of them gives entire satisfaction, as there is so much about the nature of the disease that remains unsolved.

There is, perhaps, no writer on this subject with such clear ideas as Dr. Voit, of Baden, formerly of Berlin, who has been, or is, himself afflicted with the disease, and who has made a life study of it. To give his ideas in a comprehensible form, it is necessary to go, to some extent, into a physiological explanation relative to the glycogenic function of the body.

We find that in the process of fermentation, starchy substances are converted into sugar, sugar into alcohol, alcohol into acetic acid and acetic acid into carbonic acid. A similar process must take place in the living organism, for we know positively that the exhaled carbonic acid is the end product of the sugar circulating in the blood, even if all stages of this transformation cannot be proven. A continuous conversion of CO_2, takes place in the cells of all the tissues in the body.

In a healthy person, the conversion of sugar into CO_2, in its various stages, goes on undisturbed and without interruption. In diabetes, however, the process goes on to a certain stage, when, in consequence of the blood having lost the quality of further converting sugar into CO_2, so that it may be exhaled, it remains circulating in the blood. Here, the sugar, for the purpose of respiration and generating heat, is lost to the system; it simply circulates in the blood as a foreign body, and, as such, is finally excreted by the kidneys.

The normal blood—no matter what nutriment has been taken—contains on an average 0.1-0.2 per cent. sugar. If this limit is passed, the excess will be excreted by the kidneys, and we then have the condition known as diabetes. The questions therefore, arise: (1) Why is the blood of diabetics overloaded with sugar? and, (2) Why is the sugar not further converted into CO_2 ?

Starchy substances are converted by the saliva into dextrin and sugar. The sugar then passes through the stomach into the intestines, where, by absorption, it reaches the blood in two ways: directly, by the chyle vessels, or indirectly, by the portal veins. It is very probable that nearly all of the sugar passes by way of the portal circulation; as in the thoracic duct, even after the ingestion of large quantities of saccharine food, never more than 0.1-0.2 per cent. of sugar is found.

In the liver the sugar is again converted into a substance resembling starch, differing from it only chemically, and giving a brown, reaction with iodine. This product is called liver amylum, or glycogen. From the liver, the glycogen passes through the hepatic veins into the general circulation. All the sugar conducted to the liver by the portal vein is converted into glycogen. A small quantity remains unchanged, and passes as sugar with glycogen into the general circulation.

In the blood, therefore, we find glycogen and sugar. The glycogen adheres to the white blood corpuscles, and is conveyed by them to the circulation. By the action of the blood serum, the glycogen undergoes another change. It is converted into a new form of sugar; glycogen sugar, which adapts it to undergo further decomposition: namely, combustion with the inhaled oxygen. The unchanged sugar is conveyed to the various organs and tissues of the body, particularly to the muscular structure. In the muscles, the sugar undergoes the same changes as in the liver. The glycogen is afterwards again reduced and converted into glycogen-sugar, as we have seen before in the blood, which is then ready to undergo combustion, to give off CO_2, and generate force, energy and heat, particularly during muscular activity, which brings more oxygen to the part.

The same process of partial conversion of sugar into glycogen, and of glycogen again into glycogen-sugar, seems to take place in all parts of the body where plasma formation is in progress, and cell life is active; for glycogen has been detected in nearly all the organs and tissues of the body, and sugar has been found everywhere, not only in the blood and lymph, but also in the various fluids of the system.

While the percentage of sugar in all tissues and fluids where both glycogen and sugar are found, never exceeds 0.15 per cent., we find that, under normal conditions, the percentage in the liver runs to oxygen .50 per cent. and over, proving this organ to be the principal seat of glycogenic function. Within the stated limits, the quantity of sugar in the liver varies according to the quantity and quality of the food ingested, some glycogen being found even in the starved condition up to the sixth or eighth day, when it gradually disappears. The most copious formation of glycogen in the liver occurs after the ingestion of amylaceous food, in which instance the quantity may accumulate to 10 per cent. of the weight of the liver. The more sacchariferous the food, the more glycogen is produced.

In a diabetic, the sugar disappears entirely from the urine as early as twenty-four hours after abstaining from eating, thus proving that the sugar in the urine has its origin in the food and not in the tissues of the body. It does not matter how much glycogen may be stored in the liver; the blood never contains more glycogen and sugar than 0.1 0.2 per cent. This would indicate that the white blood corpuscles, whose function it is to convey the glycogen from the liver, are under an inhibitory nervous influence, enabling them to absorb just as much glycogen in the liver as the blood demands, on the same principle as in the process of respiration, the lungs absorb only so much oxygen as the body consumes.

In proportion as the nervous influence governing these processes becomes weakened or paralyzed, the glycogenic function of the liver ceases, and the sugar passes unchanged through the portal and hepatic circulation into the general circulation. With this unconverted sugar, the blood becomes overcharged, and we have, as a result, diabetes. The longer the disease exists, and the more it develops, the more the glycogenic function of the liver becomes destroyed. This can be proven by the fact that, in the second stage of the disease, the liver-cells are without a trace of glycogen; whereas, at all other times, they are overloaded with it. Also in the same stage of the disease, the whole quantity of sugar ingested appears within one hour in the urine, which rapid transit would indicate that it has not previously been converted into glycogen.

The nervous influence appears to be of a double nature: (1) to stimulate the faculty of the liver; and, (2) The inhibitory influence to retard the action by which the white blood corpuscles are enabled to absorb just as much glycogen as the blood is in need of. If these faculties are interfered with, the blood will become overcharged with sugar, which will produce the symptoms of diabetes, and finally prove fatal to the organism.

From experiments made by Pettenkofer and Voit, it has been demonstrated that diabetics inhale less O. and exhale less CO_2 than healthy persons, facts which seem to prove, that by the presence of sugar in large quantity, the red blood corpuscles have suffered in their ability of binding O. In diabetics, therefore, in consequence of this centrally located nervous disturbance, the glycogenic function is not alone affected, but also the respiratory function; as well as the oxidation in the blood and in the tissues.

The glycogen of the blood, which cannot become sufficiently oxydized becomes deposited in the kidneys. This leads to another form of paresis in the uriniferous tubules. They become weakened, and lose all power of resistance in consequence of this continual discharge of large quantities of urine; and finally allow the sugar to escape just as the albumin in albuminuria. This want of resistance stands in close relation to the glycogenic degeneration of the uriniferous tubules, as described by Frerichs, who found it to be a constant anatomical change of diabetes.

If the foregoing physiological explanations are correct, we have then, besides the various forms of symptomatic, two forms of idiopathic diabetes, both depending on a disturbed nervous influence: a faulty nervous innervation. In one form, the nervous influence that governs the production, in the other, the influence that governs the consumption, is affected. In the first form the liver cells in their function may either be weakened or completely paralyzed. This is the most serious form of diabetes, as the glycogenic function of the liver may be entirely lost.

In the other form of diabetes, in which the inhibitory function is affected, the sugar may undergo the proper conversion into glycogen while passing through the liver, but the glycogen, instead of being stored up for gradual use, is, without impediment, permitted to enter the circulation, where it accumulates, causing morbid changes in the blood and kidneys, and is excreted with the urine without having benefited the system in the least.

The prognosis, as far as recovery is concerned, is very unfavorable, yet more favorable in that form of diabetes in which the inhibitory function alone is affected, as with proper treatment and dietetic regulations, better nutrition may be secured and maintained. To differentiate between these two forms of diabetes, the patient must be kept on a strict nitrogenous diet. If, after three days of total abstinence from carbo-hydrates, the urine still contains sugar, the liver must be still active, for the source of sugar then must come from the chemical conversion of albuminoids in that organ.

From this it appears, that idiopathic diabetes is strictly a nervous disease. It has been found that heredity plays a prominent factor in this disease—it has been observed in several successive generations. It has also been observed in families in which nervous diseases and psychopathies were hereditary. In certain cases, it is the direct effect of a nervous affection, particularly of cerebral hemorrhage, and softening, and tumors of the floor of the fourth ventricle. Functional nervous diseases, as chorea, epilepsy and psychopathies may also be associated with diabetes. It is sometimes the result of mental excitement. The disease has been attributed to injuries, particularly those which give rise to general concussion of the nervous system. I have, myself, treated a severe case of diabetes, which was the result of a blow by a sand-bag on the back of the head.

In the treatment of this disease, the main object of the practitioner must be to see that the blood at no time is burdened with sugar, so as to avoid all those unpleasant, troublesome, and dangerous symptoms that are entirely due to the mechanical influence of the sugar in the blood. He must also see that the blood always contains some saccharine matter to serve as nourishment and supply for the muscular and cellular glycogenic function; for this function will have to substitute partly the lost glycogen of the liver.

A too strict nitrogenous diet will not be beneficial. Where the liver is still active, it will lead to a breaking up of protein molecules into glycogen and urea; the latter, on account of the usual pathological changes in the kidneys, will be retained in the blood, and give rise to coma, the most dangerous, and usually fatal, symptom of diabetes. In the other form, where the liver has lost its function, the blood should not be entirely free of sugar, as it is necessary to supply the other tissues with combustible material.

Dieting should, therefore, not be too vigorously enforced. As far as medicinal agents are concerned, there is no specific for diabetes; there is no drug that has a specific action on the disease. A large number of the newer remedies, as salol, antipyrin, benzosol, sulphonal, and others, have been recommended, but have given no satisfaction in the hands of conscientious investigators.

For temporary relief, there are two that have found favor with the profession for many years past: these are mineral waters and opium. It is erroneous to expect real lasting benefit, in a chronic disease, with a tendency to weaken and enfeeble the system, from remedies which have themselves the same effect. It is not rational to treat nervous weakness with morphin, nor defective oxidation by introducing carbon into the system, as is done when mineral waters are taken in excess. The benefit derived from this treatment is only apparent—not real—as the rapid disappearance of sugar in the urine is undoubtedly due to the strict diet and hygienic measures usually enforced at the same time. The sugar generally returns as soon as the strictness of the diet is relaxed. Patients so treated may find temporary relief, but from year to year the symptoms return with greater vigor, and the weakness and emaciation increases steadily. The justification in the opium treatment lies in its slightly stimulating, and at the same time quieting, effect on the nervous system. As diabetes is etiologically a nervous disease, a quieting influence might temporarily be beneficial, but as soon as this first effect of opium has been obtained, its further use should be discontinued to avoid the debilitating narcotic effect of the drug. The occasional moderate use of alkaline mineral waters may be justifiable from the fact that the soda salts have a stimulating effect on the stomach and intestines. The alkaline waters may also serve to counteract the formation of abnormal acids in the system, to which diabetes predisposes. It is known that diabetes is an acid-forming disease, on account of a defective oxidation, associated with the same.

In late years agents have been brought into use, which, although not effecting a cure in every case, have succeeded in restoring the majority of patients to such an extent, that life, not only became bearable, but even pleasant and hopeful. This method of treatment is based on the nature and cause of the disease, which consists in a weakened or even paralyzed condition of the glycogenic function of the liver, and of the oxidation of the carbon-hydrates in the blood. This being true, the first and main object of treatment must be directed towards stimulating nervous activity, and promoting oxidation, with a view of renewing the function of the liver cells. That this can be done, even without the use of medicinal agents, except for symptomatic indications, has been demonstrated by the success obtained in country resorts, properly located, and maintained for the treatment of this class of patients. Dr. Voit, who conducts a sanitarium for diabetics in Baden-Baden, claims to be able to restore 90 per cent. of his patients.

The means employed with such wonderful results are all of a physical nature; they are rustic life, pure air, muscular activity, mental rest, cold or cool bathing, friction, massage, electricity and diet. It is the ozone in the atmosphere to which the specific action is attributed. It is considered to be the best agent for stimulating a weakened nervous system, reviving nervous action, and especially influencing the liver cells to renewed activity. An atmosphere rich in ozone-oxygen, therefore, is to be recommended to a patient. Such is best found in forests, mountainous timber-lands, or on the ocean. It is beneficial in such an atmosphere to sleep by open windows or outdoors in tents, and to combine this with moderate muscular exertion in the form of labor or hill-climbing.

While so engaged, the patient should be free from care and worry, for mental rest is essential in the treatment of all nervous affections. Cold bathing has also proved to be of great service. The bath should be taken frequently, but should be of short duration, and after bathing, friction or regular massage be employed.

The diet, for reasons already given, should not be too rigorously enforced. Not all carbo-hydrates should be forbidden, but only those that contain starch and sugar.

All carbo-hydrates, before they are converted into CO_2, have to undergo a number of successive changes. These changes are always progressive, never retrogressive, as in a chemical conversion of sugar into CO_2, the stages are always starch, sugar, alcohol, acetic acid, carbonic acid, and they are never reversed. So in a physiological conversion, whatever the successive changes may be, they, necessarily, are always progressive. Therefore, any carbo-hydrate that naturally is beyond the stage of sugar in the process of decomposition can be ingested with impunity, for it may increase the carbon in the blood, but never the sugar.

It is for this reason, that fats, although carbo-hydrates, need not be excluded from the diet of a diabetic. This is also true of sour milk, in which the milk sugar has been converted into lactic acid. In the form of sour milk, or kafir milk, an easily combustible substance may be introduced into the system, serving as a substitute for sugar. Experience also teaches that a liberal use of alcoholic drinks, of fats, of vegetable acids, or carbonic acid waters, etc., does not increase the quantity of sugar in the urine.

In conclusion, it may be said that diabetes is a chronic nervous disease, on which the various, so highly recommended remedies have little or no effect. The principal method of treatment consists in the application of physical agents, by means of which a patient may be restored to health. It is further necessary that the patient, during the time of treatment, be thoroughly educated in regard to the nature of his condition; for it depends, mainly, on himself to remain well. A patient that has once had symptoms of diabetes must always be on his guard against a return of the disease, by diet and other hygienic measures, the rest of his life.

8 Ellis street.

DELIRIUM AND DEATH FOLLOWING CATARACT EXTRACTION.

By Wilber M. Swett, M.D., Assistant Eye, Ear and Throat Clinic, Cooper Medical College, San Francisco.

Having noticed in The Medical Times of August, 1894, an article on "Delirium Following Operations on the Eye," by Dr. E. Lopez, I thought it might be of interest to report a similar case.

Mr. C——, æt. 80, American, married, came to the Clinic on account of loss of sight in his right eye and failing vision in the left.

Stæt. Presens.—General appearance, fair; well nourished; lids, normal, slight dacryocystitis; conjunctiva, slightly hyperemic; sclerotic, normal; cornea, clear, arcus senilis; anterior chamber, rather shallow; iris, reacts well; lens, R., entirely opaque; L. opaque; vitreous, R, *nil;* L., clear; fundus, R, *nil*; L. normal; vision, R., motions of hand, good perception of light; L., $\frac{15}{70}$; eyeball T, normal; muscles, normal; orbit, normal; ear, otitis media sicca; nose, rhinitis hypertrophica; deflected sepum; throat, slight pharyngitis.

Diagnosis—Right eye, cataracta dura matura; left eye, cataracta dura immatura.

Prof. Barkan operated on the right eye at the patient's house, in the presence of a portion of the senior class. Patient was nervous and uncontrollable, rolling the eye about, endeavoring to close the lids; a few drops of vitreous were lost, the speculum quickly removed, the edges of the wound adjusted and the eye bandaged. During the second night patient was restless and complained of pain. The bandage was removed, and the corneal flap found everted and infiltrated. This was replaced and the wound healed. Vision at first testing was limited to motions of the hand, patient stating that there were roots before his sight (blood clots).

Protracted healing, lack of exercise and constant worry greatly impaired his physical condition. His mind became unbalanced and he gradually grew more erratic, until opiates became necessary. Delirium rapidly increased and death followed in a few days, in all about two months after the operation.

The delirium was that of persecution and was evidently due to the fear of losing his eyesight. There was no history of insanity in the family. Patient occasionally partook of alcoholic beverages, but was not addicted to their use. His wife said he had been much worried on account of pecuniary losses. Considering the history, there must have been a predisposition to mania; the operation, worry and failure of acute vision at the first testing, served to excite his imagination and banish the last trace of reason.

14 Grant avenue.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and

HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Ablation of Large Interstitial Uterine Fibroids by the Perineo-Recto-Vaginal Method.—PÉAN formulates the following conclusions regarding fibroid tumors of the uterus: (1) Every submucous and interstitial fibroid tumor of the body of the uterus should be early removed. (2) That method of removal is preferable which permits the extirpation of the tumor while removing the uterus. (3) The growth should be removed through the abdomen when it is large; through the vagina when small or of moderate size. (4) If ablation of the fibroid necessitates great mutilation of the uterus, it is advisable to entirely remove that body and its annexes. (5) Interstitial fibroid tumors which develop on the posterior wall of the uterus and invade the recto-vaginal wall, obstruct the upper part of the vagina and render vaginal hysterectomy impossible, may be removed by means of an incision through the perineum and recto-vaginal wall extending to the peritoneum. *Technique.*—Strongly seizing the perineum and the recto-vaginal wall by introducing one blade of a long and toothed forceps into the vagina and the other into the rectum, divide the tissues on a median line between the blades of the forceps. The lower part of the tumor is then exposed between the membranes of the vagina and rectum, which it has separated. Immediately bring down the tumor by means of a pair of toothed forceps, and remove it in pieces. During, and at the close of the operation, compress the most important blood vessels by forceps, which can be removed after a few minutes or a few hours, according to the size of the vessels. Place in the cavity left by the tumor a large fenestrated rubber tube and some iodoform or salol sponges fastened to the tube by strong silk thread. Complete the operation by uniting the rectal and vaginal mucous membranes by sutures separated by Florence horsehair. Remove the sponges after two or three days, and secure antisepsis by injections through the drainage tube. This operation should only be performed in those exceptional cases in which removal by the vagina is impossible. It is then preferable to the ischio-vaginal or to the sacral method.—*Gazette de Gynécologie*, August 15, 1894.

Ustiligo Maidis in Labor.—Muscular weakness of the uterus often unduly prolongs labor and necessitates surgical intervention. The remedies in general use—the introduction of bougies, intrauterine injections, electricity, the internal administration of pilocarpin, quinine, quinine and eye ergot—either fail to attain the desired end, or go beyond it, and the contractions they excite do not present the special characteristics of contractions accompanying normal labor. Ustiligo maidis is believed to possess all the good qualities of eye ergot without its disadvantages. JAMES and MITCHELL first experimented with this remedy in America in 1886, and found that the injection of 15 drops of the aqueous extract into the lymphatic gland of a frog quickened respiration and induced clonic muscular contraction. MITCHELL, ESTACHY, and LEONARD afterward used ustiligo for atony of the uterus during labor, and DORLAND employed it in 9 cases, with excellent results. He administered the aqueous extract in doses of 192.75, and sometimes gave as much as 892. a day. Its effect is felt 25 or 30 minutes after administration, and uterine contractions are progressively accentuated exactly as in normal labor. M. GROUSDEFF resorted to ustiligo in 10 cases, after the failure of other remedies, with great benefit in every case. He recommended ustiligo maidis as a harmless and efficacious oxytocic agent.—*Vratsch*—*Journal de Médicine de Paris*. September 16, 1894.

SURGERY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal., and

G. F. SHIELS, M.D., C.M., F.R.C.S.E., Surgeon Post-Graduate Department University of California, San Francisco.

The Prevention of Adhesions after Abdominal Operations.—DR. FRITZ BAUM says that interfering adhesions have been one of the most important obstacles in abdominal surgery, and our efforts to avoid them have, so far, been in vain. Iodoform, aristol, and other drugs applied to the surface to prevent adhesions have proved inadequate. A displaced and adherent uterus can usually be freed during a laparotomy, but adhesions reform and the uterus is even more immovable than ever. In intestinal surgery adhesions are especially felt in herniotomies. These facts had so impressed the author that he began to experiment with animal structures with a view to preventing adhesions by their interposition. These structures were rendered aseptic, and were found to be soon absorbed when placed within the cavity. The first material employed consisted of catgut woven into a cloth by having one layer of thread crossing another, which procedure proved to be very tiresome, and was soon abandoned for fish bladder, which is found in the drug stores, as the so-called "gold-beaters" skin. This was more satisfactory than the catgut on account of its pliability, and from the fact that it was easily rendered aseptic. He finally adopted the peritoneum taken from a young calf immediately after being killed. These structures were prepared by keeping them in sulphuric ether for about one week, and then leaving them in absolute alcohol from 10 to 12 days before using. In experimenting upon dogs it was found that the catgut cloth had become fenestrated and partially absorbed by the eleventh day, and by the twentieth day it had entirely disappeared. The fish bladder was almost totally absorbed in from 10 to 13 days. Dr. Baum says: "The practical use of these anti-adhesive structures has been proven to me in such startling success in three laparotomies, especially with very extensive uterine adhesions, which, after being torn, never returned, the uterus being as movable after the operation as it should be physiologically, that I am convinced of their practical value."—*Journal American Medical Association*, August 11, 1894.

Operative Treatment of Gastric and Typhoid Ulcers Associated with Perforation.—MR. A. PEARCE GOULD, in opening a discussion on this subject, stated that the pathology of perforating ulcer of the stomach and duodenum was still obscure. It was common in young and anemic women of the servant class, and also in middle-aged men. It was usually single and situated on the lesser, and very rarely on the greater, curvature of the stomach. Its size was that of a sixpence or a shilling; it was of variable depth, the floor being formed either of peritoneum or possibly of a thickened area, up to the size of the palm of the hand. The symptoms for the most part were agonizing pain after eating, frequent vomiting, hematemesis, and melena. At times the patient made no complaint, and was unaware of suffering any departure from health. In truth, the symptoms were no sure guide to the extent of the disease. In the majority of cases cicatrization took place, although in 25 per cent. perforation occurred. In 85 per cent. the perforation was on the anterior aspect of the organ opening into the peritoneal cavity. He disapproved of Billroth's recommendation of timely laparotomy, excision of the ulcer, and suture of the wound, unless it was possible to establish an exact diagnosis. The surgeon's duty consisted in the prevention or arrest of peritonitis. The only hope of doing good lay in cleansing the peritoneal cavity. Hitherto too much stress had been laid on suturing the rent in the stomach, and too little on cleansing the peritoneum. The following measures should be adopted: (1) Simple washing out of the abdominal cavity. (2) Suture of the ulcer. (3) Where that was impossible, suture of the stomach to the abdominal parietes. But he could not too often repeat that the success of these cases depended upon cleansing the peritoneum. Experience alone could decide the precise period when the operation should be performed. If too long a time were allowed to elapse, the peritonitis became general and intensified. Moreover, under these circumstances masses of lymph concealed the affected parts and interfered with the cleansing of the sac. The best site for the incision was in the middle line, as this gave the best access to the whole of the abdomen, while the seat of pain was no guide to localization. First among the fluids used for flushing he placed normal salt-solution, and then boiled water. He avoided acid or toxic solutions, and used the water hot, as he found it a powerful restorative. A vital step was the systematic flushing with a large exit-tube; where practicable he sewed up the ulcer, but attributed no particular advantage to paring or excising the ulcer. The stomach might or might not be washed out. He read the notes of 6 successful cases of operation in perforating gastric ulcer. With regard to perforation in typhoid ulcers he had collected, excluding doubtful cases, 17 cases of operation with one recovery. The steps of the operation were the same as those for gastric ulcer.

Dr. R. Maclaren, of Carlisle, in operating for gastric ulcer, preferred to make his incision in the left linea semilunarius, 4 inches in length, which allowed good access to the stomach. He emphasized the point that cleansing of the peritoneum was all important. The conditions of success were system, perseverance, and a patient not on the verge of death from collapse. A detail of much importance in after-treatment was rectal feeding. Again, if the patient were much collapsed, he did not believe much in flushing. In his opinion the operative procedures in these cases were troublesome rather than difficult. Great mortality was, however, only to be expected. He mentioned a case where perforation occurred in connection with a typhoid ulcer. The only treatment adopted was that of making an incision over the cecal region and inserting a drainage-tube. The patient, although desperately ill for some time afterward, made an excellent recovery.

Mr. Gilbert Barling thought that some of the expressions of opinion with respect to these cases were too optimistic, especially so in regard to typhoid ulcers. His experience was limited to five cases. In three of these he operated; in the fourth he regretted that he had not operated; and in the fifth the patient vomited pus and passed a large quantity of pus *per anum*, but after a perilous time ultimately recovered. In one of the cases upon which he had operated recovery followed. He agreed that the less done in perforating typhoid ulcers the better.—*Lancet—Universal Medical Journal*, September, 1894.

Sterilized Catgut in a Convenient and Portable Form.—**Kiliani** (*Medical Record*) advises that catgut should be sterilized as follows: Dry catgut, not kept in oil, is put in absolute alcohol for 24 hours to remove all moisture, is cut off in pieces of two and three yards length, one of which is rolled on a glass rod and then put in a glass tube open at one end and with a little hole in the other, through which a short end of catgut is pulled. The glass rod is removed and the roll of catgut is in the glass tube. This tube, with its contents, is put in a second glass tube a little wider and longer, with one end open. Then the tube is put in a dry hot-air sterilizing apparatus, the temperature of which is brought within one hour up to 176° F. This is to cause evaporation of the alcohol and water. The open end is then closed by melting the glass, and the hermetically-sealed tube is put again into the sterilizing oven, the temperature of which is brought within one hour up to the course of two hours more to 140° C. (284° F.), which is kept up for a whole hour. Another hour is consumed in letting the temperature gradually sink again; then the outer tube is scratched with a file and it is ready for use. Immediately before using it, the outer tube is broken and the inner tube, with its contents, put for two minutes into the solution in which the instruments are lying. This is Reverdin's method, slightly modified as to the method in which the catgut is stored.—*Therapeutic Gazette*, August, 1894.

Sterilization of Catgut.—**Répin** (*Révue de Thérapeutique Médico-Chirurgicale*), has found a method of sterilizing catgut by means of heat. He uses the vapor of alcohol heated to 120° C., verifying the sterilization by placing bouillon in the same tubes with the gut. If the bouillon remains clear, the gut is fit for use; but if it becomes turbid, the ligatures should be rejected, as the tubes are infected.—*Therapeutic Gazette*, September, 1894.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

The Effect of Prolonged Excessive Light on Vision.—DR. G. L. JOHNSON found from a systematic examination of the vision of the workmen engaged in Salviati's glass factory a constant relationship between the duration of time, that the men were exposed to the bright light and the impairment of vision. The defect of the sight takes the form of a gradual atrophy of the optic nerve with impaired vision, and a shrinking of the visual field for white, but most for red and green. In no case did he get a history of the atrophy becoming complete, but vision sank to $\frac{20}{50}$ and $\frac{20}{70}$ in those who had been engaged at the furnaces for many years. The red, orange, violet, and ultra violet seem to be the injurious parts of the spectrum; the former showing its effects most on the retina and optic nerve; the latter on the conjunctiva and external parts. In no case where the workmen were exposed for several years to the furnace light, did their eyes escape without some permanent loss of vision, but those men whose duties were not confined to the furnace, although in the same room and exposed to an equal degree of heat, escaped more or less completely. The effect of the furnace glare is quite different to that produced by snow, or from that caused by gazing at the sun. The first mentioned being a chronic atrophy, the second being an acute form of blindness, in all probability produced by exhaustion of the visual purple, while the latter is a destructive change caused by direct coagulation and disintegration of the bacillary layer of cells. The remedy for furnace atrophy seems to be best met by covering the upper three-fourths of the side openings in the furnace with sheets of annealed spectrum blue glass, leaving room beneath for ventilation, and for the workmen to introduce and manipulate the glass. The constant use of spectrum blue spectacles or goggles serve even better, but there are practical objections to their use.—*Medical Press and Circular*, September 5, 1894.

Cases of Glaucoma of Young People.—DR. STORY reports the following cases of glaucoma: (1) Acute glaucoma after subconjunctival injection of cocain in a girl of 15. Tenotomy was made after the injection of cocain, the pupils were dilated with atropin. Two hours later acute glaucoma developed, which yielded to repeated instillation of eserin. A month later the other eye was operated upon in a similar way, eserin being instilled instead of atropin. Glaucoma supervened as before, and yielded to eserin instilled four times within an hour. (2) Chronic inflammatory glaucoma in a girl of 18. (3) Acute glaucoma in a woman of 35. (4) Chronic inflammatory glaucoma in a man of 30. (5) Chronic inflammatory, complicated with keratitis punctata, in a man of 30.

The Treatment of Hemorrhagic Glaucoma.—DR. BOURGERON thinks the increased intra-ocular tension is secondary to the retinal hemorrhages in true hemorrhagic glaucoma, and is dependent upon disease of the vascular system. From his study of the condition the author draws the following conclusions: (1) The prognosis in true hemorrhagic glaucoma is very bad. Enucleation is often unavoidable. (2) All operations, except sclerotomy, are contraindicated. (3) Prognosis is unfavorable both for the general condition and for the local affection, The oculist should not neglect to call the attention of the family physician to the general condition of the vascular system. (4) In the hemorrhagic stage the indications are to care for the general condition, and to prevent hyperemia of the eyeball by laxatives, diuretics, diaphoretics, diet, exercise, and hydrotherapy. In the glaucomatous stage mydriatics, moist warmapplications and injections of ergotin should be used.—*Archives of Ophthalmology.*

An Operation to Correct Astigmatism.—DR. W. H. BATES, noting the fact that after operations upon the cornea, astigmatism is produced, makes the suggestion that an operation may be made to correct high degrees of this anomaly of refraction. He makes the following propositions: (1) A corneal incision lengthens the radius of curvature of that corneal meridian which is at right angles to the line of the incision, and does not flatten any other meridian. The astigmatism produced is a regular astigmatism, and is corrected by a convex cylinder at an axis parallel to the line of the incision. (2) The immediate is greater than the ultimate result. (3) The astigmatism produced is permanent in a length of time—at least a month after the cornea has healed. There may be at first 3 D of astigmatism produced. At the end of a month there may be 2 D. At the end of three months the astigmatism may still be 2 D, and this amount will be permanent. (4) The amount of astigmatism is greater the nearer the incision is to the center of the cornea. As much as 9 D can be produced. (5) Mixed astigmatism occurs: (*a*) temporarily; (*b*) with incarceration of the iris. The corneal incision should be made at right angles to the most convex meridian. The amount of correction can be regulated by the number, depth, and location of the incisions. The author reports two cases upon which he had operated with the desired result.—*Archives of Ophthalmology.*

The Use of Thiersch Flaps in Repairing Losses of Conjunctiva.—DR. H. GIFFORD has found this method of repairing loss of conjunctiva fairly successful. In cases in which the patients were unable to wear artificial eyes on account of cicatricial contractions, he was able to improve the condition so that the eyes could be worn. In an obstinate case deep incisions were made into the subconjunctival tissue, and these were firmly packed with iodoform gauze, which was left in place for 48 hours. On removing the gauze the walls of the crevices remained so widely spread apart that, after freshening the surfaces with a sharp spoon, the flaps could be adjusted with perfect accuracy, and small rolls of gauze could be introduced to hold them in place. Sufficient space was gained to allow the introduction of a very decent-looking eye. There was considerable subsequent contraction, however, and the final result, though a decided improvement, could hardly be called brilliant.—*Archives of Ophthalmology.*

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M.D., Sacramento, Cal.

Antipyrin as a Vesical Analgesic.—(*Ann. des Malad. des org. Genito-Urin.*), M. E. VIGNERON notes the frequent occurrence of smarting pains in the bladder directly after an irrigation, and when the last few drops are being expelled. He recommends the use of antipyrin in such cases, and mentioned its value, particularly in contrast to cocain in cases requiring continued use, for relief from pain. Where the bladder is not much dilated, irrigation with a 4 per cent. solution of antipyrin—10 to 20 grains in quantity is recommended. The solution is allowed to remain 10 minutes in the bladder. In dilated bladders, a ½ of 1 per cent. to a 1 per cent. solution is strong enough; the quantity, 60 to 120 grammes, being allowed to remain indefinitely in the bladder.—*Centralblatt f. Chirurgie.*

Local Applications of Guiacol.—M. TERRAND reports at the Société Med. des Hôpitaux that in order to use this remedy as a local analgesic over large areas without irritating the skin, it should have added to it an equal part of glycerin, and be covered with rubber tissue to prevent evaporation. The analgesia commences at once and is established in a few hours. Should pain return it can be relieved by renewed applications. On the other hand, to obtain antithermic effects it is necessary to use the drug pure, or nearly pure, in each case, in a vehicle which can be absorbed by the skin.—*Révue de Thérapeutique Medico-Chirurgicale*—*American Journal of Medical Sciences*, October, 1894.

Treatment of Epithelial Cancer of the Skin by Methylin Blue.—DR. DARIER has again taken up the question of treatment of epithelioma by methyl blue. Every one knows the quasi elective action of this substance upon epithelial tissue. The author begins by freeing the ulceration surfaces of crests by aseptic sprays and poultices. If there exist on the borders thickened resistent elevations, they are touched with the galvano-cautery so as to permit the chemical elements to penetrate to the deeper layers. The cleansed surfaces are then covered with cotton, wet in a 10 per cent. solution of cocain, and are then painted with a concentrated solution of methyl blue; 1 gramme methyl blue, 5 grammes of alcohol, and 5 grammes of glycerin. All the parts colored blue are now lightly touched with a steel stylet, moistened in a 5 per cent. solution of chromic acid. A reaction producing a purple color takes place. The blue is applied for a second time, after which the surrounding parts are carefully washed to remove any excess of staining. As a dressing either poloto powder poultices or compresses wet in a weak solution of corrosive sublimate are applied to prevent the formation of crusts. This operation is repeated every second day for four or five times, and then the methyl blue is used alone. This treatment lasts from three weeks to two months in superficial epitheliomas, according to their extent. In deep forms the author has had good success from interstitial injections of methyl blue. They bring about a softening in the center of the tumor. The contents of the pocket thus formed are evacuated, and he then acts on the walls of the cavity with methyl blue and chromic acid.—*Journal Cutaneous and Genito-Urinary Diseases*, October, 1894. [The above is the method of Prof. Mösetig, of Vienna, used by him the past ten years, *vide* MEDICAL TIMES, vol. v, p. 230. I have experimented with methyl violet, but am much less enthusiastic than Dr. Darier. In employing it by itself, as it is logical to do, in order to appreciate its exact value, I have usually obtained only very imperfect results, and those open to question. I believe however, that one is authorized in saying that the method can be employed when the patients will not hear of operation of a radical nature.—G. C. S.]

The Treatment of Eczema.—MALCOLM MORRIS, in a paper read before the Dermatological Section of the British Medical Association, treats on the management of eczema. With regard to internal medication, the less the better. In an ordinary chronic eczema, when the health does not appear to be affected, he relies entirely on local treatment. In acute inflammatory lesions, antimony is of great value. Beginning with 10 to 15 minims of the wine of antimony, and repeating the dose in an hour, and if need be two hours later, then gradually reducing to six minims three times in 24 hours. With regard to local treatment, he treats every case as if it were of parasitic origin. The best remedy in dry chronic eczema, especially of seborrhcic origin, is sulphur, and next to that resorcin. He begins with 10 grains of precipitated sulphur, or of resorcin, in an ounce of zinc ointment, gradually increasing the amount of parasiticide. When the inflammation is acute, ichthyol is especially useful. When there is much discharge he washes the part with a weak solution of boracic acid, and afterward dries it with muslin bags containing starch and boracic acid, or with flour mixed with boracic acid. Crysarobin has been successful with very persistent chronic eczema of the flexures.—*Boston Medical and Surgical Journal*, October, 1894.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Therapeutics of Sea Air.—The meteorological features of sea air, though necessarily varying widely according to latitude, prevailing winds, and land conditions of shelter, have certain more or less fixed characteristics. Sea air is everywhere somewhat moist; it is generally of relatively high density; it is always more or less in motion, and it is to some extent slightly impregnated with saline particles; it is, on the whole, much more equable in temperature than inland or mountain air. As regards its physiological influence on the healthy organism, sea air is usually tonic, *i. e.*, it promotes the processes of nutrition; it is very generally a stimulant of the nervous system; but warm and moist sea air, combined with conditions of local shelter, may even be decidedly sedative in character. There seems to be some ground for believing that sea air is always more or less provocative of metabolism and tissue change in the organism. The applicability of sea air to states of disease requires careful consideration. The neurotic, the hypochondriac, the dyspeptic patient will as often receive injury as benefit from such climatic conditions. The sufferer from cutaneous diseases should, as a rule, avoid the sea. Rheumatic and gouty patients do not, as a rule, benefit by sea air. On the other hand, strumous cases often do wonderfully well at a seaside resort, especially of the brainy type; cases of impaired convalescence after serious illness or operation do well under similar conditions, provided that all acute symptoms have subsided and all grave complications have become inactive. Simple debility and anemia also usually do well at the seaside, and so do many cases of incipient or quiescent phthisis. A key to the remarkably beneficial results of sea air in struma is to be found in its property of stimulating tissue change, by which it tends to rid the organism of morbid products and to promote healthy and normal growth. The good effects in anemia and debility are due to the freshness and purity of the air, the breeziness, and the large average of sunlight. The influence on the nervous system is a much more complex question. It is a matter of common observation that in some cases the nervous system is rendered more irritable by sea air, with resulting insomnia, nervous debility, and the like; while in other cases sea air produces deep and refreshing sleep and a general sense of *bien être*. In some cases the effect of sea air is at first excitant and infrequently sedative. The safe general rule seems to be that where there is much irritability, particularly of the sort that may be termed "irritable weakness," sea air disagrees. Where the nervous system is simply torpid or debilitated, without decided irritability, sea air will often be found beneficial. Hence, sea air is contraindicated in hysteria and in most forms of insanity; it is often indicated in nervous debility, especially when due to overwork or the wear and tear of a tedious illness. In simple atony of the stomach and bowels sea air is usually beneficial but it is probable that in some cases of chronic dyspepsia sea air is injurious by stimulating the appetite before the stomach and bowels have received sufficient activity to be able to dispose of the increased amount of food consumed by the patient. The ill effect of sea air upon many chronic cutaneous diseases, especially chronic eczema, is a well established fact, and may be due to the sea winds, with more or less saline impregnation acting as irritants to the cutaneous surface. The beneficial influence in cases of incipient and quiescent phthisis is probably simply due to its tonic properties and to the fact that life at the seaside is usually conducive to habits of simple living and healthy out-door exercise, which are so important to those suffering from phthisis. The amount and stage of the disease, constitutional peculiarities, and season of the year must be taken into account in selecting for the phthisical patient either stimulating or sedative marine resorts. Another broad rule that may help in deciding for or against the seaside is the well known fact that sea air tends to aggravate all inflammatory conditions.—*Lancet*, August 11, 1894.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

Bacteriotherapy of Typhoid Fever.—FRAENKEL and MANCHOT have obtained marvelous therapeutic results in the treatment of typhoid fever with injections of sterilized cultures of typhoid bacilli. The liquid employed for these injections is prepared as follows: Tubes containing sterilized bouillon made from the thymus gland are inoculated with a culture of typhoid bacilli upon agar. The tubes thus prepared remain in an autoclave for 62 hours, at a temperature of from 36° to 37° C. They are then subjected in a sand bath to a temperature of nearly 63° C. This temperature will completely sterilize the cultures. The injections are made into the gluteal regions in progressive doses. The results formulated, after treating 57 cases of typhoid fever, are as follows: A first injection of 0.5 c. c. of the fluid produced no appreciable results, but a second injection of 1 c. c. the next day produced an elevation of temperature accompanied sometimes by a chill. The third day the temperature is reduced, and on the following day this reduction is still further accentuated. At this period the temperature can be from ½ to 1 degree below that which prevailed at the beginning of the treatment. If the injections are now discontinued the temperature again commences to rise. By now injecting 2 c. c. of the sterilized culture fluid, the same phenomena are produced, but more pronounced than before. The amount of fluid injected is increased by 1 c. c. each time, and the injections are discontinued when the temperature no longer shows a tendency to rise. Under the influence of this treatment the temperature rapidly loses its continuous character, and is transformed into a remittent type of fever. The remissions are accompanied by profuse perspiration, increased diuresis, and general amelioration. Then follows a definite apyrexial state, and the patient passes into the stage of convalescence. Even though the treatment has been begun after the debut of the disease, equally good results are obtained. TH. RUMPF has obtained similar good results in the treatment of typhoid fever in 30 cases, by injecting sterilized cultures of the bacillus pyocyaneus, which are prepared and used like the cultures employed by Fränkel, Thus it would seem that the favorable influence exerted on typhoid fever can be evoked by antitoxins from other microbes.—*Semaine Médicale.*

Trigeminal Neuralgia.—BOENNERKEN (*Berl. klin. Woch.*) directs attention to dental caries as a cause of trigeminal neuralgia. While this cause is recognized, it is often difficult to detect the offending tooth. He has observed this neuralgia in many people whose teeth were apparently healthy, and not until the application of a special diagnostic measure could the caries be detected. The following is a typical case cited by way of illustration: A woman had violent paroxysms of pain in the left temporal region radiating toward the occiput. These pains persisted in spite of the administration of the usual analgesics. The patient had many carious teeth which were filled, but notwithstanding, the pain persisted. The author then had recourse to an examination of the teeth by electric light. By transillumination he observed that in all teeth in which the pulps were healthy there was a rosy reflection, whereas in the teeth which contained unhealthy pulps the reflection was obscure. By this means he was convinced that the second left molar tooth presented a less degree of transparency than the other teeth. The application of ice water to this tooth gave no pain, but upon the application of a warm dental instrument pain was felt in the left temple. He then cut down to the pulp of this tooth and found it congested. Extraction of the pulp and filling the tooth was followed by permanent relief. He has employed this means of diagnosis in other cases with equally good results.—*Semaine Médicale.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane,
Stockton, Cal.

Epilepsia Luetica.—DR. P. KOWALEWSKY, in a paper on this subject, differentiates between a hereditary and an acquired form of syphilitic epilepsy. The hereditary form again may occur, either as a medullary epilepsy, in consequence of a congenital weakness of the nerve-centers, which is the most frequent form, or as a cortical epilepsy. This latter form may originate from circumscript gummatous processes, in which case the course is a typical one; it may, however, also be caused by diffuse gummatous processes. In this latter event the course of the disease is indefinite, accompanied by congenital deformities. The writer is of the belief, based on his own observations, that the medullary form is the result of paternal, the cortical form of maternal infection. The cortical epilepsy produced by acquired syphilis may be divided with regard to etiology into four different forms: (1) It may be caused by solitary gummata in the cortex or the meninges. (2) By diffuse gummatous processes of the bloodvessels of the cortex and meninges. (3) By absorption of syphilitic virus during an energetic anti-syphilitic treatment. (4) By cicatricial formation taking the place of gummata, which is one of the most obstinate forms of syphilitic epilepsy. During the secondary stage of syphilis one may meet with medullary epilepsy, though not very often.—*Berliner klin. Wochenschrift—Centralblatt f. Innere med.*

Hemp Drugs and Insanity in India.—DR. TULL-WALSH, Superintendent of the Insane Asylum at Calcutta has made the following observations concerning the influence of these drugs in the production of insanity and allied neuroses: Hemp drugs are very largely used in Bengal, smoked as gánja and churrus, drank as chang and siddhi, or eaten as mâjune. The smoking of churrus and the eating of mâjune are not very common. Among healthy persons gánja smoked alone with tobacco, or with a very small addition of datura (two or three seeds) produces a condition varying from mild exhilaration to marked intoxication. The violent intoxicating effects are less marked, or are not seen at all, in persons having a regular and wholesome supply of food. Among persons of weak mind, or with marked neurotic tendency, even a moderate quantity or only a slight excess of hemp drugs may so increase the insanity, evident or latent, as to make such persons violent, morose or melancholy, according to the neuropathy present in the first place. Adulterations, such as datura, will increase these effects, and may, even in healthy persons, produce a very violent intoxication, simulating mania, or may develop a morose, melancholy condition, terminating in dementia. These conditions are generally of short duration and the patient ultimately recovers. So common is absolute recovery that when a patient, confined in an asylum for the treatment of insanity, said to be due to the abuse of hemp drugs, does not recover within ten months, it may be concluded that these drugs were possibly only the exciting cause and that the individual was either insane previous to their use, or a latent insanity present, was roused into activity by the vitiating effects of excess of gánja, chang, etc.—*Dublin Journal of Medical Science*, July, 1894.

FORMULÆ.

By Geo. B. Somers, M. D., San Francisco, Cal.

Tuberculosis Pulmonalis. — Carasso believes that *mentha* exerts a direct bactericdal action upon the bacilli of the respiratory tract. Besides inhalations of peppermint, the following mixture is given internally:

Creasote	gm. 8.0
Alcohol	550.0
Glycerin	250.0
Chloroform	20.0
Essentia menthæ	8.0

S.—Teaspoonful every 3 hours in a half glassful of water.—*Journal American Medical Association.*

"C. C." Cough Mixture.—The following mixture is said to be largely used in the Philadelphia Hospital:

Codein sulphate	gr. ⅛
Dilute hydrocyanic acid	m ii
Spirits of chloroform	m xv
Mucilage of acacia	m xv
Syrup of wild cherry	*ad* ʒi

—*New York Medical Journal.*

Tympanites:

Ol. terebinthinæ	ʒi
Ol. amygdalæ dulc.	℥ss
Tr. opii	ʒii
Mucil. acaciæ	℥v
Aq. laurocerasi	℥ss

S.—A teaspoonful every 3 to 6 hours.—*Medical Press and Circular.*

British Oil.—This preparation is extensively sold as an application to cuts, bruises and sores:

Oil turpentine	
Oil linseed	āā ℥viii
Oil amber	
Oil juniper	āā ℥iv
Barbadoes tar	℥iii
Petroleum	ʒi

—*Bulletin of Pharmacy.*

Agreeable Salicylic Mixture:

Potasii acetatis	℥ii
Acidi salicylatis	℥ss
Syrupi limonis	℥ii
Aq. menth. pip	℥viii

S.—Tablespoonful every 3 hours.—*North American Practitioner.*

Flatulence. — Hartshorne prescribes:

Olei cajuputi	℥ss
Tinct. lavand co.	℥ss
Mucil. acaciæ	*ad* ℥ii

S.—Desertspoonful when necessary. *Medical Press and Circular.*

Diarrhea in Infants.—Rothe uses

Acidi carbolici	gr. ii
Bismuthi subnitratis	ʒi
Syr. acaciæ	℥ss
Aq. menth. pip	*ad* ℥ii

S.—A half teaspoonful every 2 to 4 hours.—*Medical Press and Circular.*

Milk Furnished by Strauss Milk Depot.—The New York depot, supported by Mr. Nathan Strauss, furnishes baby milk after the following formula:

Sugar of milk	12 oz.
Lime water	8 oz.
Milk	1 gal.
Water	1 gal.

This mixture is pasteurized (167° F.) *Medical Record.*

Bougard's Paste.—Used in cancer:

Wheat flour	
Starch	āā ℥i
Powdered arsenious acid	gr. viii
Red sulphide of mercury	℈ii
Ammonium muriate	℈ii
Corrosive sublimate	gr. iv
Zinc chloride (cryst.)	℥i
Hot water	℥iss

—*Journal American Medical Association.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for September, 1894.—The deaths registered in 78 town districts of the State, during the month of September, in a population of 769,870, correspond to an annual rate of 14.88 a thousand, the total mortality having been 958. 143 deaths were due to zymotic diseases, giving an annual rate of 2.22 a thousand. Of these, 4 were due to diphtheria, 47 to cholera infantum, 33 to typhoid fever, 25 to diarrhea and dysentery, 10 to cerebro-spinal fever, 3 to whooping cough, 12 to croup, 5 to intermittent and remittent fevers, 0 to scarlet fever, 3 to measles, and 0 to small-pox. 216 deaths resulted from diseases of the respiratory organs, giving an annual rate of 2.36 a thousand. Of these, 145 were due to consumption, 47 to pneumonia, 20 to bronchitis, and 4 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.16 and .72, respectively. 75 deaths resulted from diseases of the heart, 12 from alcoholism, 0 from erysipelas, 28 from cancer, and 418 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 579,500, was 16.08 The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from Sacramento, the lowest from Stockton. No report from San Diego, Marysville, and several other towns of good size.

METEOROLOGY.

Summary for September.—*Temperature.*—The normal temperature of the State for September is 69.8°; the average for September, 1894, was 69.7°, a departure from normal of -0.1°. The highest monthly mean was 91.4°, at Salton, in the desert regions of San Diego county; the lowest, 52.1°, at Boca, in the mountain regions of Nevada county. The maximum temperature was 116°, on the 22d, at Volcano Springs, in the desert regions of San Diego county; the minimum, 22°, on the 28th, at Greenville, in the mountain regions of Plumas county. The greatest monthly range was 70°, at Greenville; the least, 29°, at Eureka. The absolute monthly range for the State was 94°.

Rainfall.—The normal precipitation for the State for September is 0.21 inches; the average for September, 1894, was 0.86 of an inch, a departure from the normal of +0.65 of an inch. The greatest monthly precipitation was 4 inches, at Delta; the least, 0, at various places throughout the State.

Wind.—The prevailing direction of wind was northwest.

Unusual Features.—The unusual meteorological feature of the month was the excessive rainfall on the 29th and 30th.—James A. Barwick, Director California Weather Service.

California—Tabular Statement for September, 1894.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean...........	Highest	Lowest..........	Mean Highest	Mean Lowest........... ..	Mean Daily Range	No. of Days Rain Fell.......	Total Rainfall...............		No. of Clear Days.....	No. of Fair Days............	No. of Cloudy Days............	Prevailing Direction.	
Auburn ....Cal.	74.0	97	50 0	------	------	------	0	0.67	------	----	----	----	S.W.	Southern Pacific Company.
Berkeley......... "	64.0	92	50.0	74.0	55.0	19.0	1	1.61	78.0	24	5	1	S.	Obs. University of California.
Colfax............ "	69.0	98	42.0	------	------	------	0	1.00	------	----	----	----	N.E.	Southern Pacific Company.
Eureka........... "	56.0	71	42.0	63.0	49.0	14.0	5	1.84	87.0	15	12	3	N.W.	Weather Bureau Dept. Agr.
Fresno............ "	74.0	102	48.0	90 0	58.0	32.0	2	0.75	40.0	27	2	1	N.W.	" " "
Medio .... "	88.0	113	66.0	------	------	------	0	0.00	------	----	----	----	W.	" " "
Los Angeles.... "	69.0	99	49.0	82.0	57.0	25.0	2	0.73	72.0	12	18	0	W.	" " "
Monterey .... "	66 0	88	44.0	------	------	------	0	0.00	------	----	----	----	S.	Southern Pacific Company.
Napa........... .. "	70.0	95	47.0	82.0	57.0	25.0	1	1.23	67.0	21	7	2	S.W.	Station Napa Insane Asylum.
Oakland .... "	64 0	91	49.0	74.0	54.0	20.0	3	1.66	81.0	23	6	1	W.	Chabot Observatory.
Paso Robles.... "	67.0	98	42.0	85.0	48.0	37.0	2	1.13	37.0	28	0	2	S.W.	Southern Pacific Company.
Red Bluff....... "	75.0	100	48.0	88 0	62.0	26.0	2	1.11	40.0	25	3	2	N.	Weather Bureau Dept. Agr.
Sacramento. ... "	64.0	90	38 0	80.0	48.0	32.0	2	0.68	49.0	26	3	1	N.W.	" " "
Sau Bernardino "	70.0	99	42.0	88 0	53.0	35.0	1	0.37	------	----	----	----	--------	A. K. Johnson, M.D
San Diego....... "	66.0	90	52 0	74.0	60.0	11.0	1	0.01	80.0	21	0	9	N.W.	Weather Bureau Dept. Agr.
San Francisco.. "	63 5	94	49.0	71.0	56.0	15.0	2	1.05	76.0	22	7	1	S.W.	" " "
Santa Barbara.. "	66.0	94	50.0	74.0	58.0	16.0	2	1.36	73.0	18	6	6	W.	Hugh D. Vail.
Santa Cruz...... "	65.0	98	44.0	78.0	51.0	27.0	2	2.77	------	21	2	7	W.	W. R. Springer.
Yuma...........A. T.	83.0	109	50.0	99.0	68.0	31.0	1	0.51	46.0	26	3	1	N.E.	Weather Bureau Dept. Agr.

Humidity at Paso Robles is the mean at 2 P. M.

Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate th text, illustrations will be furnished without cost to the author.

SACRAMENTO: NOVEMBER, 1894

OLIVER WENDELL HOLMES.

At his country seat, near Boston, there died, October 7, 1894, a man who was conspicuous in two hemispheres as having filled a dual role for nearly half a century, in each attaining eminence and renown. Only such power of concentration of thought and diversity of genius as were nature's gifts to OLIVER WENDELL HOLMES made possible a career that has proven a rich legacy to medical science and intelligent humanity.

DR. HOLMES was born in Cambridge, Mass., August 20, 1809. The house in which he first saw the light of day was but a stone's throw from the classic halls of Harvard University, and, until a very recent day, it was one of the cherished landmarks of its locality. Springing from an intellectual family, it was natural that he became at an early age an aspirant for university honors. He was graduated at Harvard in the class which stands to-day as the most remarkable in the history of that institution.

A brief period subsequent to his graduation was devoted to the study of law. Discovering for himself his lack of interest in this avocation, he abandoned it, and turned at once, and with wonderful avidity, to the field of medicine. The years 1834, 1835 and 1836 were devoted to the acquirement of his medical degree. A considerable portion of this period was spent in Paris, then the world's center of medical education. Here he became the disciple of a coterie of men, teachers of medicine and surgery, than which no other is more notable in the entire history of medicine.

In his essay, "Some of My Early Teachers," he was afforded ample opportunity, in a manner delightful and peculiarly his own, of paying tribute to some of the professors famous in Paris while he was a student in the École de Médecine. Briefly he tells of BARON BOYER, "that bent old man who is groping his way through the wards of La Charitè;" of BARON DUPUYTREN, the master surgeon of his day, whose reign no man disputed, whose supremacy some envied; of **Lisfranc**, the great drawer of blood and hewer of limbs; and of **Baron Larrey**, **Napoleon**'s favorite surgeon. "To go round the Hôtel des Invalides with **Larrey** was to live over the campaigns of **Napoleon**, to look on the sun of Austerlitz, to hear the cannons of Marengo; to struggle through the icy waters of the Beresina, to shiver in the snows of the Russian retreat, and to gaze through the battle smoke upon the last charge of the red lancers upon the redder field of Waterloo."

Holmes' medical teachers were not less worthy of mention than were those whose time was devoted to surgery. He makes mention of **Broussais** and **Andral**, the former a fiery exponent of old theories; but his special object of reverence was the immortal **Louis**, who first taught the necessity of numerical records and mathematical analyses in estimating the value of methods adapted to the treatment of disease.

In 1838 he was elected to the chair of anatomy and physiology in Dartmouth College. In this station he entered upon what he ever after regarded as his life's work. Nine years later he succeeded **Dr. John C. Warren** as Professor of Anatomy and Physiology in the medical department of Harvard University. Some years after this, a special instructor in physiology having been provided, his entire attention was directed to anatomy. His resignation was tendered to the regents of Harvard University in 1882, when he was in his seventy-third year. Thus he was actively and continuously engaged as a medical teacher for forty-four years.

It is worthy of note that, in spite of his well-earned and brilliant reputation as a philosopher, essayist and poet, he was forever loyal to his first love. He was always, and upon all occasions, a doctor; and not infrequently did he emphasize his fealty to his chosen calling by statements to the end that he who would devote himself successfully to authorship should first be trained to a vocation which should occupy a portion of his time, and contribute, in some measure, to his support.

We recall with wonderful vividness, and always with tender affection, the form and features of **Professor Holmes** as he appeared in the amphitheater nearly a decade before his retirement. Of medium stature and slender mold, his suit of somber black and close-fitting skull cap conveyed to the observer an impression of undue attenuation. His smoothly shaven face bore here and there apparent evidences of advancing age, but when he had fallen into a humorous vein, what had seemed wrinkles became a wreath of smiles. His countenance, usually grave, at times almost severe, was lighted up by eyes that sparkled and seemed never to rest. To his pupils he was always the same: dignified, sincere, cheery, helpful. He was indeed a dull and unappreciative listener who failed to be impressed by DR. HOLMES' charm of manner, keen wit and incomparable diction. We fancy that few students in those days parted company with their professor of anatomy with feelings other than of sorrowful regret. If, perchance, there be a few who deny to him the name and fame of a profound anatomist, to them let it be said, that in the hearts and affections of his pupils he is cherished as one of the great teachers of anatomy of the present century.

In the field of medical authorship, PROFESSOR HOLMES occupied a prominent and distinguished place. His contributions in this department were usually in the form of lectures and essays, many of them having been prepared for, and delivered upon, special occasions. Through them all there is discovered that peculiar vein of humor which has made all of his productions attractive. His monograph entitled, "The Contagiousness of Puerperal Fever," first published in 1843, attracted much attention, and there can be no doubt that it had a marked influence in the production of a radical reform in the conduct of the lying-in chamber.

The last twelve years of his life were passed quietly. A brief but memorable visit to Europe was made in 1886, during which he gathered material for that delightful volume, "One hundred Days in Europe." His time was chiefly devoted to rounding up his former literary work. Many of his productions were revised for republication, and several new volumes added to the list.

His life was full of work, and his work was a blessing to mankind. His name now passes into history as the last segment of that wonderful literary circle—LONGFELLOW, BRYANT, LOWELL, EMERSON, WHITTIER, HOLMES.

THE MEETING OF THE CALIFORNIA NORTHERN DISTRICT MEDICAL SOCIETY.

It is usual, if not always truthful, to speak of medical society meetings as "successful," and the term becomes stereotyped; yet the fourth annual meeting of the California Northern District Medical Society was so remarkably successful that the familiar term can be applied in an unqualified manner. We have attended many society meetings, but none at which more interest was evinced, nor any where strict attention and earnest work were more markedly exhibited. The entire proceedings were characterized by a vim that was positively refreshing, and that, if maintained, will place this Society in the front rank of our professional organizations. It is in all things true that that most easily obtained is least valued. The truth of the converse was here demonstrable. Men who had made long journeys, and who had sacrificed a night's rest to be present, were prepared to enter thoroughly into the spirit of the occasion. Even the President was not afraid to face a 57-mile drive in order that he might be present at least during two sessions. The total number in attendance was nearly 75, representing 30 per cent. of the membership.

As will be seen by our report of the proceedings, a number of good, practical papers were presented, and in the very full discussions following their reading, the daily experience of men, compelled to rely largely on their own resources, imparted special value to this feature. Country practice does not admit of theory or rash experiment; it demands assured methods, prompt relief from urgent symptoms, and good judgment in grave emergencies. Papers and discussions at such a gathering are, therefore, earnest and practical, results rather than speculation and inference being the rule. In the discussions on papers at the meetings of this Society, steady improvement is noticeable. Meetings of this character are of the utmost benefit to men who practise in comparative isolation, affording them an opportunity for interchange of thought and experience, without prolonged absence from business. Nothing can more forcibly testify to this than the steady increase in membership and the very large attendance at this meeting. The success of such a society is already assured; it needs only good management and fair executive ability in its officers to attain the very highest measure.

The District Society as originally organized included only five of the northern counties, but the interest manifested in its proceedings convinced its founders that a wider sphere was possible. The meeting in Sacramento inaugurated the new departure, and the large accession of members on that occasion demonstrated the correctness of this view. In accepting the invitation of the San Joaquin County Medical Society to meet in Stockton, a new territory will be invaded. We anticipate another large accession of members in this field, rendering the Society more thoroughly representative of Northern and Central California. Dr. H. D. Lawhead, of Woodland, has been elected President for the ensuing year. Dr. Lawhead has always been an earnest worker and a sincere supporter of medical organizations, and as he will give his best energies to this office, the Society may look for a prosperous year.

Marysville, the birthplace of the Society, is centrally located and easy of access; arrangements could therefore be made that would enable all who attended the meeting to remain until late in the evening. The banquet tendered by the Medical Society of Yuba and Sutter counties was therefore a gratifying success, and the fourth annual meeting will long be remembered as a most profitable and enjoyable occasion.

NOTES.

Dr. M. Gardner.

Mr. J. R. Foster having resigned the position of Superintendent and Secretary of the Southern Pacific Company's Hospital Association, Dr. M. Gardner, of Sacramento, has been appointed Chief Surgeon and Superintendent, with headquarters at the general office of the company in San Francisco. This appointment went into effect October 15, 1894.

The Indian Medical Congress.

The first Indian Medical Congress, which is to open in Calcutta on December 24, is beginning, our correspondent in London writes, to excite a considerable amount of interest among the medical profession in this country, and not a few, express the intention to take advantage of special facilities which are likely to be given, in order to pay the cold weather visit to India, which has now become so popular, not to say fashionable. A committee has been appointed in Calcutta to make arrangements for the convenience of foreign visitors. The price of accommodation in Calcutta may be taken to be from rupees 7 to rupees 14 a day for Europeans; the secretary for European or American visitors is Surgeon-Capt. Pilgrim, General Hospital, Calcutta. The general secretaries of the Congress are Dr. W. J. Simpson, Medical Officer of Health, for Calcutta and Dr. D. M. Moir. The Congress will be held at the time of the year when the climate of Calcutta is very agreeable; and it will be the first occasion upon which the official and non-official members of the medical profession in India will have met together upon an equal footing for the discussion of scientific questions. The Congress, according to precedent, is divided into sections as follows: 1. Medicine and Pathology. 2. Surgery, including Ophthalmology. 3. Obstetrics, and Diseases of Women and Children. 4. Public Health. 5. Medico-Legal Medicine and Insanity. 6. Pharmacology, specially Indigenous Drugs. Subjects of discussion have been suggested in all the sections, bearing more or less directly upon Eastern matters; but in the section of pharmacology special attention will be given to indigenous drugs.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, September 18, 1894.

H. L. NICHOLS, M.D., in the Chair.

Fracture at the Elbow Joint.—DR. W. H. BALDWIN reported the case of a boy [patient exhibited] 7 years of age, who fell from a fence, fracturing the epicondyle of the right humerus. Examination showed considerable tumefaction on the inner side of the arm and an abrasion of the skin. Upon movement of the elbow, crepitation was elicited. His arm was put up in the straight position; and the first dressing was removed on the eighth day, when passive motion was set up. The limb was then placed on a right angle splint. Most authorities oppose too frequent movement of the arm. In these cases malpractice suits were not unknown, the result even of careful treatment being sometimes bad. The child had since been chloroformed four times, and the joint forcibly extended. He is now carrying an eight-pound dumb-bell. There is yet some stiffness, but the time—eight weeks—that has elapsed since the injury, has hardly been sufficient to restore full motion.

DR. T. W. HUNTINGTON, who had seen the case, believed that, with the amount of motion present at the end of eight weeks, the boy would regain the use of his arm in a year. Authorities were divided as to the proper position for this fracture. He preferred to place the arm at a right angle, and in the present case would have followed the same plan that had been pursued by Dr. Baldwin.

DR. THOS. ROSS: Fractures about the elbow or knee joints are the most difficult to treat. Irregular bandaging was more likely to cause trouble than tight bandaging. Where the pressure was equally divided no harm would ensue.

DR. G. A. WHITE: If the arm be placed in the rectangular position, with the thumb upward, the bones are nearly parallel. He did not believe in interfering with the joint until repair had been so far advanced that tolerably firm union was present. The results of passive motion were then much more satisfactory.

DR. W. A. BRIGGS believed that Dr. Baldwin would get a satisfactory result in this case. He treated these injuries by placing the arm in the right angle position, and he did not begin passive motion before the eighth day.

DR. J. H. PARKINSON: The best position for this, as for all other fractures, is that in which the parts are maintained in their normal relation with the greatest comfort to the patient. He believed that early movement in these injuries did not cut much figure in the ultimate result, as a large amount of the plastic material thrown out in the early stages was subsequently absorbed. He therefore believed in trusting to movement later, and, if necessary, under an anesthetic.

DR. H. L. NICHOLS believed there was nothing gained by early motion.

Hysterical Convulsions Simulating Eclampsia.—DR. F. B. SUTLIFF said: I would like to report a case that at first gave me some little trouble. During the past week Mrs. McC—— was delivered of her first child, with nothing remarkable regarding the labor. She seemed to be doing well for the first two days after

delivery, having had no fever nor any symptom pointing toward complication or trouble. On the afternoon of the third day I was urgently summoned to see her, as she was "dying." I found her in a convulsion and wholly unconscious. I was told that the condition developed rapidly, without warning, and that she had never had such an attack before; her sister, who was present, having always known about her health. It did not look to me like a convulsion from uremia, nor was there any suppression of urine, no swelling of the feet nor any symptom to indicate such a cause. She did not snore, there was no twitching of the eyelids; she muttered, and when sharply questioned or spoken to, she would make some half-way effort to reply. She became a little better after a few hours, only to have another attack, and others from time to time for two days. At no time during the two days was she wholly conscious. On the third day she was rational, bade me good morning as I entered her room, but said that she was blind. I asked her how she knew that it was I, and she replied that she knew by my voice. She admitted knowing that it was daylight, but could not count my fingers held before her eyes. The next morning sight had returned, and her complete recovery was uneventful. She remains well save for a badly burned foot, caused by a hot stove-lid applied during the first convulsion. I look upon the case as one of hysteria, but, occurring as it did soon after confinement, it was well calculated to deceive. She had had retention of urine for a day or so, and a sample, drawn and tested, showed no trace of albumin.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, Tuesday, September 11, 1894.

The President, W. WATT KERR, M.D., in the Chair.

New Member.—A. NELSON BEACH, M.D., was duly elected a member of the Society.

Aphasia, with Amnesia, Paraphasia and Agraphia.—DR. W. WATT KERR presented a patient 51 years of age, who came under his observation four and a half months ago. He was taken suddenly with ataxic aphasia, amnesia, paraphasia, and agraphia. He complained at first of severe pain in the head, which was confined to no special region. At present he shows great improvement, the headache and amnesia have disappeared, the aphasia is nearly gone; there has been no paraphasia in the past six weeks; agraphia is slight, and the tongue, on protrusion, points toward the right. He repeats "round about the rugged rocks the ragged rascals ran" quite well. The interesting feature is the extreme interference with speech, and the very slight paralysis. The trouble has most likely been due to embolism in the primary branches of the middle cerebral artery. There is no specific history, and the patient does not drink or smoke. He has, however, hypertrophy and dilatation of the heart, with slight mitral regurgitation. The treatment pursued was, first, iodide of potassium, and, later, strychnine.

DR. C. G. KUHLMAN thought that the trouble was not due to embolus, because the blood vessels in that region were large, and it ought to have given rise to graver and more permanent symptoms.

Severe Hemorrhage following Tonsillotomy.—DR. C. G. KENYON reported the following case: About two weeks ago he removed a tonsil from a lady with the usual curved scissors. The operation was followed by rather profuse hemorrhage, which, however, ceased in a few minutes without any styptic measures. In the evening the patient returned, accompanied by her husband. Hemorrhage had come on after leaving the office, and was very profuse, she being quite exsanguinated. On arriving he found a fellow practitioner in his office endeavoring to arrest the bleeding with ice. Digital compression was then tried without satisfactory results. A hemorrhoidal forceps was next applied about the stump of the tonsil, and a ligature placed above it. This was a very difficult proceeding, as the patient was beginning to suffer from syncope. After two days the ligature slipped off during the evening when the patient was at the theater. Late that night she reappeared at his office in a great state of excitement, and spitting blood quite freely. He then passed a curved needle, armed with a ligature, through the tonsil, or rather what was left of it, from below upwards, and for a time this seemed to be effective. A few hour later he was called to her house. There was not much hemorrhage, but the patient and her husband were alarmed. The speaker again resorted to the curved needle, passing the ligature from behind forward, including the anterior pillar of the pharynx, effectually staunching any appearance of blood, and there has been no trouble since. This last ligature still remains, the first one having come away two days ago. He anticipated no further trouble. The tonsil, or rather the remnant remaining, has completely atrophied. There was nothing amiss in the operation, a complete excision had apparently not been done as otherwise there would have been no stump to secure. He was quite satisfied that the patient was a "bleeder," as she had since informed him that she once very nearly "bled to death" (using her own expression), after an operation. He would not undertake to remove a tonsil from this patient again, even if she desired the operation; and in the light of this experience he would always undertake the operation with some little trepidation in future. He did not believe that any one could have anticipated such a contingency, as there was nothing in the appearance of the parts, or of the patient, to render such an outcome at all probable. He believed that the plan adopted in this case was a good one, though it would undoubtedly be very difficult to perform on a child.

Rupture of an Ovarian Cyst during Labor, Causing Death in Two Days. DR. KENYON also reported a case of parturition in a strong, healthy primipara. The first stage was prolonged, but delivery was accomplished with no unusual circumstances. Shortly afterwards a condition of collapse supervened, which it seemed impossible to account for. There was no rise of temperature. Notwithstanding the uterus was washed out, supporting treatment was adopted, but the patient died within two days. Regarding the case as one of some obscure trouble he insisted upon an autopsy, which was granted. This revealed a ruptured ovarian cyst, which accounted for the fatality.

DR. C. G. KUHLMAN said he never operated in acutely inflamed tonsils. He believed that a strong solution of cupric sulphate never failed to arrest a hemorrhage from this source. The second case reported by Dr. Kenyon was certainly a rare one. We never have pregnancy if both ovaries are degenerated. He did not believe that cysts were an obstruction in such cases.

DR. G. W. DAVIS said Dr. Kenyon's method of checking hemorrhage in the case of tonsillotomy seemed new, and the *modus operandi* was certainly important.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, August 18, 1894.

The President, JOHN F. MORSE, M.D., in the Chair.

DR. N. ROSENCRANZ read a paper on "One of the Causes of Frequent Micturition in the Female," [published at p. 642] and exhibited the specimen, a small fibroid.

DR. DUDLEY TAIT: I like to see a limited subject chosen, but in this instance the plan gives rise to errors. The fact that this patient had urinated too frequently for several years, and after the removal of this *very* small fibroid, was restored to health, does not tend to show that the recovery was the result of the removal of the tumor. We all know that astonishing results often occur after abdominal operations. In fibroids, we meet with pathological changes in the uterus that give us frequent micturition—also from retroverted uteri, hematocele, and all masses that cause pressure symptoms from their bulk and weight. Now, in this case, there certainly were *no* pressure symptoms, the fibroid being so very small. If these symptoms were due to weight or adhesions we would certainly have as much trouble after as before the operation, as more adhesions would be formed and even cicatrices.

DR. E. CALDERON: Perhaps in this case there was some hysteria, and the result of the operation was due to the mental effect of the treatment. I should advise that Dr. Rosencranz wait awhile and see if it is entirely cured.

DR. D. W. MONTGOMERY: As Dr. Tait has said, this fibroid is very small to have caused such trouble by pressure. I believe it would be wise to keep the case under observation for a time, before stating positively that a cure has been effected. The operation *per se* might have caused a cessation. It is only four weeks since the operation—hardly long enough for one to be sure that a thorough cure has taken place.

Dr. Rosencranz: Regarding the hysteria theory, this patient was under Weir Mitchell and took his rest cure for six weeks without any benefit. This small growth was on the anterior surface of the bladder—about the center of the base. One could understand small growths near the neck setting up such symptoms. They were caused by irritation, not by pressure.

The President: This case is interesting, and the ultimate results will be watched with much interest.

The President: I should like to bring before the Academy for discussion the subject of the thyroid gland, and its surgical treatment. This gland is now occupying the attention of the surgeons. I have now a case of simple parenchymatous inflammation of the thyroid; the patient desires to have the gland removed. I understand there are surgeons here who remove it entirely, but I believe this practice to be antiquated.

Dr. D. W. Montgomery: Myxedema generally results after removal of the thyroid, and is combated by the administration of desiccated thyroid or the sheeps' thyroid given when fresh.

Dr. Dudley Tait had lately had a case where the walls were thickened, and in the center was found a small cyst; this case terminated happily. In Switzerland, operations on goitre are frequent—and he believed total extirpation was not advocated.

Dr. R. W. Baum: I have seen many operations in Frieburg by Prof. Maass. If the tumor were not too large, total extirpation was done. Death occurred in some instances, where the mass was large, from the wearing and subsequent breaking of the tracheal rings. In small goitres, I have seen good results from iodine, internally and externally.

Dr. Tait: I have not seen good results from iodine; I have seen it used in pregnant women, and at the same time tonics were given, with no benefit; nor have I observed any benefit from parenchymatous injections.

Dr. E. Calderon: I have treated two cases by potassium iodide internally, and an ointment of the proto-iodide of mercury, externally. The treatment was quite painful; in three weeks an eczema appeared. The ointment was suspended for three weeks and was then resumed. The goitres were not large, and good results followed, which I do not attribute alone to the external treatment. In Switzerland, a part of the gland is left to avoid myxedema—which will certainly appear after total extirpation; I believe it best to allow the isthumus to remain.

The President: I was always under the impression that in extirpating the thyroid, it was necessary to leave a portion, as myxedema always follows total removal, and was quite surprised to learn that surgeons here advocated the total removal of the gland.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, September 3, 1894.

The President, F. Z. Bazan, M.D., in the Chair.

Dr. A. E. Brune read a paper entitled "Something about the Nature of Diabetes Mellitus." [Published at p. 648.]

Dr. Henry Gibbons urged the importance of mental rest in the treatment of diabetes.

Dr. L. C. Lane said while he was a student at Göttingen he worked a long time in the physiological laboratory. One day the liver of a patient who had just died of hydrophobia was given him for examination. He extracted the glycogen and found the amount remarkably large. He remembered to have seen the experiments of Claude Bernard where by the needle prick he produced a glycosuria. In regard to treatment, he had tried in a few cases tincture of iodine, as recommended by Bouchard, of Paris, but without beneficial effect. Cantani advised the use of lactic acid. The speaker had used it with very great success in reducing the amount of sugar excreted, so that in some cases the specific gravity fell from 1040 to almost normal. The patient is fed on meats, and is given from half a drachm to a drachm of pure lactic acid diluted with some inert substance such as glycerin. He had seen it act pronouncedly within 24 hours. Certain mineral waters are recommended. He had found Bethesda water to have a decided effect. A patient of his, a chemist, who suffered from diabetes, gave a good account of the effect of the water at the springs. He said that many patients there rapidly became better. Only of late some writer claims that he made his patients eat sugars and starches, not only with impunity but with benefit.

Dr. I. Rivas said in some cases it was impossible to restrict the diet to albuminoids alone. He had, two years ago, a case in an old person who was greatly emaciated, in which he allowed anything to be eaten. No evil apparently resulted.

Dr. Stanley Stillman said he had seen two cases in which any mental strain brought on an increased excretion of sugar. Dr. Brune laid no stress on the use of drugs. He believed it was the duty of the physician to administer those few drugs which are of benefit, but chiefly because that is one of the most effective means of securing mental rest. To send a man to the springs, or to tell him not to worry, is easy to do, but the man will not stop worrying. When he is taking medicine, even if it does him no good, it makes him think something is being done for him, and contributes to his peace of mind.

Dr. Basil Norris told of a case where a boy became deranged—demented to a slight degree. His father was greatly worried and began to be troubled with diabetes. Another case was always pleased with a new remedy. For a while his favorite drug was arsenic.

Dr. R. H. Plummer said this question of diabetes reminded him of a statement made by a medical man a few years ago, when he was Secretary of the State Board of Examiners. It so happened that the diploma this gentleman presented was without date, and hence not valid in the eyes of the law. The doctor said that he had never looked at it since it was given him on the platform. He knew that he was not much of a doctor, but now he doubted whether he was a doctor at all. So it is with this subject of diabetes. It is doubtful whether any of us are doctors at all. Dr. Plummer referred to a number of cases he had attended. In one the specific gravity of the urine dropped in three days from 1040 to 1018, when Bethesda water was given. The benefit was, however, but temporary. In many patients no benefit whatever is derived from this water. He had tried lactic acid in two cases without effect. Large doses of ergotin had a little effect in some cases, none in most cases. He had, at present, a patient excreting from 6 to 12 pints of water in 12 hours, with a specific gravity of 1038 and 1040. He had given ergotin, opium, lactic acid, electricity, Bethesda water, and many other things, and the urine was never brought below 5 pints in 12 hours, and the specific gravity was never below 1036. He had seriously thought of removing all restrictions as to diet as a last resort.

Dr. Lane said that coma should not be forgotten. It is well to prepare the patient and his friends for such a contingency.

Dr. C. N. Ellinwood had used piperazin, which, while the patient takes it; reduces the amount of the urine and the specific gravity.

Dr. E. W. Thomas had noticed in a recent article on the subject that levulose was suggested to be used in place of starchy foods. He had seen arsenic recommended in the form of arseniate of soda.

Dr. K. Pischl said the oculist is often the first to make the diagnosis in albuminuria, and sometimes in diabetes also. Cataract occurs frequently in diabetics. This is due to the disturbed condition of the ciliary vessels. Such cataracts, if not of too long standing and too extensive, may clear up again. Occasionally retinal inflammations are observed, hemorrhages, fatty degenerations, neuritis, and paralysis of accommodation and of the external muscles.

Meckel's Diverticulum.—**Dr. Emmet Rixford** exhibited an example of Meckel's diverticulum found at a *post-mortem* examination. He also demonstrated certain lesions of the kidney which are characteristic of diabetes.

CALIFORNIA NORTHERN DISTRICT MEDICAL SOCIETY.

Fourth Annual Meeting, held in Marysville Tuesday, October 9, 1894.

MORNING SESSION.

The fourth annual meeting of the California Northern District Medical Society was held at Masonic Hall, Marysville, Tuesday, October 9, 1894. In the absence of the President, W. A. BRIGGS of Sacramento, the Society was called to order by the First Vice-President, R. F. ROONEY of Auburn.

Addresses of Welcome.—The Honorable W. T. ELLIS, Jr., Mayor of the city said: Mr. President and members of the Northern District Society: In behalf of the citizens of Marysville, I extend to each and every one of you a hearty welcome; and the freedom of the city is at your disposal for as long as you may desire to remain with us. On account of the excellent health enjoyed by our people we find, as a usual thing, that our resident physicians are more ornamental than they are useful; but on this occasion I am quite satisfied they will reverse that usual order of things, and make themselves useful in the way of thoroughly entertaining their guests, so that when you leave us you will carry with you an impression that Marysville has sustained her reputation for hospitality. We are honored by your presence, and I trust that your session will be a most agreeable and satisfactory one.

DR. DAVID POWELL, of Marysville, the Chairman of the Committee of Arrangements, said: There is nothing that affords greater pleasure than the privilege of greeting a welcome guest, and in behalf of the members of the Medical Society of Yuba and Sutter Counties, and as Chairman of your Committee of Arrangements, the very agreeable duty devolves upon me of expressing to you the unfeigned pleasure which we experience from your presence here this morning. This large attendance is not only gratifying to us at whose invitation you have assembled here, but nothing could better evince your loyalty to the profession of medicine and your genuine interest in medical progress. Neither the fatigue of travel, the sacrifice of valuable time, nor the deprivation of the accustomed comforts of home, has deterred you from lending your influence to, and by your presence insuring, the success of the fourth annual meeting of this Society. But we trust that the consideration of the very excellent program before you will prove sufficiently interesting and instructive to convince all that you have been fully compensated for all the trouble, and inconvenience, and sacrifices, to which your attendance here this morning may have subjected you. Of late years there has been a very marked increase of interest manifested in medical organizations. Physicians are learning to appreciate more and more the benefits, the importance and the value of medical societies: instituted as they are, for mutual improvement, mutual protection, and the cultivation and advancement, of medical science. Indeed, the phenomenal progress which has marked the history of the science of medicine, in all its departments, during the past decade of years, may be largely attributed to the impetus which the study of medicine has received from systematic and thoughtful work done in medical societies. And yet, while physicians are devoting their time and best energies to achieve greater success in their profession, and exerting every faculty to acquire still greater skill in the practice of the art, their efforts are far from being generally appreciated. The injustice of public sentiment and the ingratitude of the average individual are never more apparent than when measures for the preservation of the public health are sought to be inaugurated by the medical profession. What other profession or calling exists whose members are daily advocating measures, the adoption of which would curtail their business and lessen their income? I will venture to say that, aside from the medical profession, you will look in vain over the whole field of professional and business pursuits to find a single example. Even the honorable and learned profession of the law, for which we all have the greatest respect, does not always manifest the public spiritedness, the unselfish interest in the welfare of others, that distinguishes the profession of medicine. An instance occurs to me—and I speak of this not disparagingly of the profession as a profession, but to show you an instance of individual bias in this matter: Not very long since a prominent member of the bar in our own legislature opposed the enactment of a law in which physicians were interested, because, as he stated, its operation would have a tendency to lessen litigation. This same man is now prominent in the councils of the nation, and a distinguished disciple of Blackstone. Let us hope, for the credit of the great profession which he disgraced, that his utterances were but the selfish, sordid sentiment of the individual's own moral obtundity. Physicians, on the other hand, are continually striving to disseminate among the public a knowledge of sanitary laws, and are using every means known to science to preserve health, and check the spread of communicable diseases. There is scarcely a hamlet in the State that has not a Board of Health, composed largely of physicians, who are earnestly engaged in promoting sanitary measures for the protection and well-being of the community in which they reside. So that, with the one great object in view, the physical welfare of our fellow-beings, we devote time and money in attending these medical societies, and medical associations, in attending sanitary conventions, State and local Boards of Health, without hope of reward or expectation of any compensation save the satisfaction of faithfully performing the high, and sacred, and self-imposed duties devolving upon us as earnest devotees of the healing art. Four years ago the California Northern District Medical Society was organized with less than a score of members, and representing but three counties: Butte, Yuba and Sutter. To-day we have a membership of over half a hundred, with representatives from nearly every county north of San Joaquin and Solano; and, as there are upwards of three hundred physicians in the district, many of whom have already expressed a desire to unite with us, we may reasonably expect in the near future still greater accessions to our numbers. It may not, therefore, be considered merely a fanciful, chimerical dream, to predict that the time will soon come when this Society will be second only to the State organization, not only in usefulness but in numerical strength. The program which is now before you has been carefully arranged, and will, we hope, meet with your approval. As you observe, there will be a morning, afternoon, and an evening session. The committee has endeavored to allow sufficient time for the reading of papers during the forenoon and afternoon sessions, the evening session to be devoted to the transaction of unfinished business, the election of officers for the ensuing year, the selection of the next place of meeting, etc.; at the close of which you are all cordially invited to participate with us at a banquet at the New Western Hotel. We extend to you all a hearty, sincere, fraternal greeting. We welcome your coming, and when the day's work is finished and the time comes for you to take your departure, we hope that you will carry with you agreeable memories of this occasion, and pleasant reminiscences of your brief sojourn with us.

Oliver Wendell Holmes.—T. W. HUNTINGTON, of Sacramento, moved that when the Society adjourn at noon, it do so in respect to Oliver Wendell Holmes, the poet, patriot and physician. The President, in putting the motion, which was carried unanimously, said the name of Dr. Holmes was "dear to all our hearts."

Chronic Interstitial Nephritis.—J. E. RODLEY, of Chico, read a paper upon this subject. He wished particularly to direct attention to the clinical features of the disease, omitting reference in detail to the morbid anatomy. His experience had led him to believe that many persons suffering from this form of Bright's disease are treated for some of the many complications arising during its progress, without suspicion of the real nature of the complaint. This was due rather to incompleteness of examination than to want of knowledge on the part of the practitioner. He was also satisfied that most of the subjects of this disease had been affected for some time before their condition was understood; the symptoms in the earlier stages being so trifling as to cause no anxiety, and to readily escape a superficial examination. The speaker illustrated his position by reporting two cases: The first, that of a patient who had, for some time, been treated for chronic pneumonia, which absolutely resisted medication. On falling into his hands, examination showed dulness on percussion over the base of both lungs and fine crepitant rales. There was cough, with white frothy expectoration, and moderate dyspnea. The heart was found to be enlarged, and examination of the urine showed the presence of albumin. Inquiry into the history of the case revealed the fact that, though active both mentally and physically, the patient had for some time suffered from digestive derangements and shortness of breath on exertion. The second case had consulted him for a cough, with white, frothy expectoration, which his former physician had informed him was due to bronchitis. Physical examination showed dulness over both lungs, posteriorly, and cardiac hypertrophy, and albumin in the urine. This patient, who had always considered himself to be in good health, was so distressed at the diagnosis and prognosis that he went elsewhere and was again treated for bronchitis, and subsequently for asthma and stomach trouble, but finally returned with a moderate amount of dropsy and greatly increased dyspnea. It would seem that in some cases, where the changes in the kidney have been far advanced, a sudden exposure to cold, by arresting the function of the skin, throws additional work on the kidney, thereby developing the graver disease. The most constant feature in contracted kidney is the absence of visible dropsy, at least in the early stages. He believed that many of these cases were due to long and persistent dyspepsia. A lesson to be learned from this theory was that attention should be given to all cases of persistent dyspepsia. In diagnosis, the frequent use of the microscope was a safeguard against error and an early warning in incipient mischief.

DR. G. W. STRATTON, of Marysville, said this was one of the most important forms of Bright's disease, because it makes its appearance so slowly that it is rarely discovered until the disease has become seated. As Dr. Rodley says, it is often overlooked by the patient as well as by the physician.

DR. W. E. BATES, of Davisville: I would like to ask Dr. Rodley if he has used nitro-glycerin in these cases; and, if so, with what result? He touched but little upon the treatment; in fact, I did not hear that he offered anything upon that point at all. I have used nitro-glycerin in these cases, and I have had excellent results from it.

DR. RODLEY, of Chico: In all cases of chronic interstitial nephritis that have come under my care, my results have been better where I could get the skin to act. The first thing the anatomical conditions of the disease would indicate is that there is very little we can do to relieve the kidney. The mischief has already been done. The kidneys cannot secrete the urine, and not near the amount necessary, or that a healthy kidney would carry away, can be removed. The contraction of the tissues involves the whole body of the kidney, but the cortical substance more especially, so that both kidneys are not doing one quarter the work they ought. Edema of the lungs follows, that being the point of least resistance and the lung tissue being weaker, and extravasation of serum into the air cells, with consequent dyspnea, occurs after the disease is far advanced. Relief in a condition of that kind can only be afforded, in my belief, by getting the skin to act vigorously, thereby removing the water from the blood, which relieves the kidneys from the tension under which they are suffering. After the edema has been removed to a certain extent, it seems to relieve the tension, and the patient gets along very nicely for a time, being often able to attend to business for quite a while, especially in warm weather. My experience with most of these cases has been about the same, where the kidneys are in that condition, and I do not believe there is anything in medication that will remove it after it is far advanced. As to the action of nitro-glycerin, I have frequently used it, and have never seen any direct action on the kidneys. It does have a very good effect on the heart's action in some cases. I have also tried cactus pellets, but they have not given me the satisfaction that nitro-glycerin has.

DR. THOS. ROSS, of Sacramento: I was much pleased with that part of the paper which called the attention of the profession to the necessity of an early diagnosis in this disease. By making an early diagnosis, we can protract the patient's life almost indefinitely. It is a disease, as we all know, that comes on stealthily; where the patient is in apparent health and attending to his daily business for a long while, perhaps, after it has commenced its ravages on the kidneys. I remember a case, some five or six years ago, seen in consultation with Dr. Macfarlane, of Woodland, where we used pilocarpin, by injection, with very good effect. Indeed, I believe but for its use the patient would not have survived many hours. In the treatment of the disease more can be done by regulating the diet and guarding against cold than by any medication. Of course, complications, such as dyspeptic symptoms and edema of the lungs, require attention. Whenever a patient between the ages of 40 and 60 complains of some difficulty in breathing, and on a physical examination an enlarged heart and an atheromatous condition of the radial artery is found, our attention should be immediately called to the kidneys, and we might then make a proper diagnosis, which otherwise we would not do.

DR. W. E. BRIGGS, of Sacramento: I have frequently seen cases of eye trouble arising from chronic interstitial nephritis, which had escaped the observation of the physician. More often, probably, the patient did not consider himself particularly ill, being able to attend to business, until his eyes began to fail, and on examining them I have found albuminous or white patches, and occasional imperfections in the retina. Occasionally we find that the physician has overlooked the patient's condition in that respect until these changes have become established. The slow and insidious development of the symptoms in these cases is the reason that the pathological condition is not sooner recognized. It is very important in all cases of chronic trouble, where the patient does not recover promptly under treatment, to examine the urine, and you will then discover the trouble very much sooner.

DR. O. STANSBURY, of Chico: There is one question I would like to ask Dr. Rodley, for my own information and for that of others: Suppose we are called to a case where cardiac asthma exists; examination of the urine reveals albumin; would we be justified in considering that a case of Bright's disease of the kidneys, primarily or secondarily, from the heart trouble? I would be inclined myself to regard this as primarily heart trouble, the other troubles coming on as secondary conditions.

DR. RODLEY: The only true way to arrive at a diagnosis of interstitial nephritis, or in fact of any form of Bright's disease, is by the microscope. There are very many acute diseases, even pneumonia itself, which is very common among us, where at times on examination of the urine we will find albumin. But in those cases you never find any epithelial cells or any granular or hyaline casts. You may have a heart affection which is caused not by any kidney trouble, but by trouble with the heart itself, such as enlargement of either side or aneurism in any part. Still, in the absence of epithelial cells and granular or hyaline casts in the urine, I should not feel disposed to make a diagnosis of Bright's disease of the kidneys.

DR. T. W. HUNTINGTON, of Sacramento: I did not intend to discuss this subject, it not being one with which I am especially familiar. At the same time it seems to me there is an opportunity for error to get abroad from something that has been said in regard to the relation between heart troubles and the consequent renal affections. I believe it is generally understood and accepted now, that an organic lesion causing unnatural disturbance of the circulation may result in true chronic interstitial nephritis. By that, I mean: carry with it all the evidences of chronic interstitial nephritis. In all valvular trouble of the heart we may look out very sharply for disturbance in the renal organs, which will be as serious and more certainly fatal than the original trouble in the heart. For that reason, wherever we find in early life an affection of the heart which is almost certain to be permanent, as valvular trouble, we ought to caution against exposure and against excesses of any sort, on account of the very probable serious involvement of the kidneys which may ensue therefrom.

DR. B. F. GILL of Dunsmuir: In my opinion the indiscriminate use of drugs, especially for the treatment of gonorrhea under the old method, and the common forms of syphilitic affections, is largely responsible for many cases of chronic interstitial nephritis. In chronic inflammation of the kidneys resulting from dyspepsia or indigestion, I fully agree with Dr. Rodley in giving great stress to the treatment of the skin. It is an established fact that every catarrhal affection of the mucous surface is particularly aggravated by an inactive condition of the skin. I find in my experience that it is not a good plan to coddle the patient; but the skin should be treated with stimulating baths and washes, and sometimes with oil, that he may become more hardy.

DR. NELSON WATTS, of Chico: In the treatment of true Bright's disease, I have had very excellent effects from the use of muriated tincture of iron and acetic acid. I remember one patient who, a few years before, had had a double dose of typhoid fever and nearly died from it, and who came to me with every symptom of true Bright's disease. His urine was loaded with albumin; he had cyanosis, and that doughy, bluish appearance that we find in that disease. I treated him with muriated tincture of iron and acetic acid, and he recovered. In about two years he returned in a similar condition, and I treated him in the same way, and he again recovered. That was years since, and he is still alive and well, a sound and hearty man. Now I wish to say a word about another form of the disease which I call malarial Bright's disease, of which in forty years' practice in a malarious section I have had three or four cases. In each there was every indication of Bright's disease; but I discovered it was simply the effects of malaria. In the cases referred to I used the anti-malarial treatment, which you all understand, and the patients were cured.

Dr. Ross of Sacramento: I can bear testimony to the beneficial effects of muriated tincture of iron in the treatment of chronic Bright's disease, in a case where the urine was apparently three-fourths albumin in volume, where there were hyaline casts and all the microscopical evidences of the disease present. I gave it sometimes in teaspoonful, but generally in half teaspoonful, doses, in milk, three or four times a day, and the effect was something remarkable. Dr. Macfarlane is well acquainted with the case.

Dr. W. W. Macfarlane, of Woodland: I remember it very well. It was rather a peculiar case. I have since seen the lady, who lives next door to me, every day. She had a miscarriage—an abortion in fact—was very badly managed and was in a very bad condition. Her ankles were almost as large as her thighs, there being hardly any difference in size from her thighs to her feet, and the tissues were full of water. I know that Dr. Ross gave her tincture of iron until she could not take it any longer, when he would stop its administration and wait a week or two and then give it to her again. She now seems to be in perfect health.

Dr. Rodley, of Chico: I have used the muriated tincture of iron, not only because of its styptic qualities but to increase the hemoglobin and strengthen the blood. We all know that in Bright's disease there is an increase of water in the blood—that it is not carried away as it should be, and consequently the blood vessels become distended, and, being distended, the water retained in the blood leaks through into the cavities of the body. I can understand how tincture of iron, in that condition, would be very beneficial. But we must first get the skin to act, so that we may get rid of that excess of water which has accumulated in the cavities. I never saw a case of any form of Bright's disease, or, in fact, of any active congestion of the kidneys, where there was not more or less effusion in some portion of the body. If that has continued any length of time it is absolutely necessary that the circulation should get relief in some way; and it will relieve itself by throwing out the water in the blood through some portion of the body or of the skin. A profuse perspiration will relieve such condition. Dr. Ross spoke of administering pilocarpin with very good effect. I have seen that done on several occasions, but I must say I am afraid of it. If you have a heart which is fluttering and faltering, and a high degree of effusion, and give pilocarpin, with the rapid effect it sometimes has, it is liable to do injury. I have given it myself in one or two cases, but it never seemed to act as well as jaborandi alone. In such cases I generally put the patient on jaborandi, and give it in small doses; and very often I will give about half a teaspoonful of the infusion every hour until it produces a diaphoretic effect. It seems to do better; it does with me. But pilocarpin, which I have used, as I say, in some cases, acts so quickly and its action stops so quickly that you do not derive from it that steady relief obtainable from jaborandi. I give the jaborandi, in about half teaspoonful doses every two or three hours, until there is quite a profuse diaphoresis which always continues for a long time. I have had to keep it up for two or three days, and the patient would seem to get relief and to get better with every dose he took. The muriated tincture of iron, in conjunction with jaborandi, I should think would have a very beneficial effect, where there was any effusion, or where the blood vessels were distended. The iron would contract the blood vessels, rid the system of the excess of water in the blood and build up the blood.

AFTERNOON SESSION.

The Importance of the Early Recognition of Strabismus and of the Prevention of Ophthalmia Neonatorum.—W. E. Briggs, of Sacramento, said: Preventive medicine is beginning to receive the attention that its importance demands from the general practitioner, but the specialist occasionally sees very sad results from neglect of well-recognized prophylactic measures. Were Credé's method of dropping a 2-per-cent. solution of nitrate of silver into the eyes of the new-born and a proper cleansing of the eyes carried out, there would be a very marked decrease in the number of inmates of our blind asylums. Were prompt measures taken to relieve children who suffer from obstructed nasal breathing, we would see fewer deaf grown people. The point he wished particularly to emphasize in his paper was the importance of early examination of all children who have a tendency to convergent strabismus. This can be made plain by giving, in a concise manner, the conditions producing strabismus. A large proportion, probably three-fourths, of the cases of convergent strabismus are caused by far-sightedness, which can be corrected. If the hypermetropia be corrected by glasses before the deviation has long existed, the tendency to converge is likely to be relieved and a worse fate obviated. If the squint has become permanent and not alternating, the deviating eye is sure to be nearly blind. Even if the eye be restored to proper position by an operation, it is very problematical whether the vision in the deviating eye is restored and binocular vision regained.

Dr. C. H. Gibbons, of Arbuckle: It is not in the range of the general practitioner to take the place of the specialist, but we all should feel the great responsibility resting upon us in these cases of incipient strabismus. I am satisfied I have myself accomplished much good in preventing such cases from developing; for I consider it as imperative a duty to prevent disease as to attempt to cure it after it has become established. There can be no question of the importance of recognizing the early symptoms in the cases referred to, and thereby obviating future serious results.

Dr. David Powell, of Marysville: This paper is of particular interest to the general practitioner, for the reason that on him rests the responsibility in a great many cases, if not in a majority of cases, where children are troubled with eye diseases. I cannot recall now who has made the latest investigation of the matter, but I remember reading, some time ago, a report by Dr. West, I think, of New York, who had examined the eyes of a great many children in the asylums for the blind, and he concluded, after a careful research into their history, that in the case of some 60 or 65 per cent. of those who were totally blind, the affliction was due to ophthalmia neonatorum. So we can all readily see what responsibility rests upon every practitioner who attends these little ones at their birth. It has been my custom for a number of years to personally attend to the washing of the child's eyes, and not leave it entirely to the nurse. I am in the habit of directing the nurse to first wash the child's face, and not to use for that purpose water that has been previously employed in washing the body, but clean water; and then to cleanse the eyes thoroughly. If there is any suspicion of inflammation, or if there is found to be a purulent discharge from the vagina, I use additional precautions, instilling into the eyes, after washing the lids with warm water, a drop of a 2-per-cent. solution of nitrate of silver. That, I think, has been recommended by many of the leading obstetricians and oculists, to prevent the development of the ophthalmia. By taking these precautions, we can often prevent the greatest misfortune that can afflict a human being—total blindness. Of course, in ordinary private practice, it is not necessary always to use such strong remedies, but I always superintend the cleansing of the child's face and eyes, in every instance. There are a great many conditions found after birth, injurious to the child, that should be attended to, as the doctor suggests in his paper, and the fact that the attention of the Society has been called to these matters is likely to prove of great benefit, because we are apt to overlook these little things, when, if attended to promptly, and at the time, much suffering and annoyance in the future might be avoided.

Dr. J. H. Parkinson, of Sacramento: The point to which Dr. Powell has just spoken is one that I was about to raise myself. The care of the eyes of the new-born is certainly a most important feature in the management of any labor case, and one which I think receives too scant attention in many instances. Like Dr. Powell, for several years I have personally attended to that matter. I have washed the eyes of the child with clean water. But in the last two years, in spite of what I considered careful attention, I have had three cases of ophthalmia neonatorum. I then decided, with the advice of the author of the the paper just read, that it was better to use a germicidal solution, and for some time I employed bichloride of mercury, 1:4 or 5,000. Not many months ago, I came across a case which rather upset my theory in that regard, and which has rather upset me since. The child was born about 11 o'clock in the day. The eyes were first carefully washed, and then bathed with a mercurial solution. When I saw the child on the following morning, there was considerable edema of both lids and a profuse purulent discharge. The father told me that on the previous evening, not more than 10 hours after delivery, there had been a similarly violent purulent discharge. We know that many authorities among oculists believe that all cases of ophthalmia neonatorum following labor are gonorrheal in character. That view, however, I am not prepared to accept. In this particular instance I inquired faithfully, but failed to elicit anything which would attach suspicion to either parent of either recent or former discharges. The case was certainly one of very ugly inflammation, and so severe in character, and coming on so rapidly, that it was difficult to decide what was the predisposing cause. Dr. Briggs saw the case within an hour after the diagnosis was made, and, while severe for 48 hours, the trouble eventually subsided, and recovered under his treatment. I raised the point myself as to whether or not the mercurial solution had anything to do with it, which he did not believe. Since then I have been using the nitrate of silver solution which Dr. Powell mentions, and have had better success with it. I believe, however, that it is necessary, in using that solution, to wash out the eye afterward; not merely to put a drop or two in each eye and let it remain there, but after it has remained half a minute or so, to wash out the eye with boiled or clean water. If this be done, it will avoid all irritation, for a solution of that strength, I think, is likely to be irritating in character, while antiseptic.

Dr. W. E. Briggs, of Sacramento: The attention of the medical profession has been called to the subject of ophthalmia in children as very common in the last few years, and facts have been carefully collated. From the history of the cases in the blind asylums we find, as Dr. Powell has said, that a very large percentage of the blindness is due to ophthalmia neonatorum. That fact should certainly put us on our guard and make it incumbent on physicians attending labor cases to pay very strict attention to the eyes of the new born. The eyes should be washed out with clean water before anything else is done to the child, and either a solution of bichloride of mercury (1:5000) or a solution of nitrate of silver should be dropped into the eyes and the eyes again washed with clean water. I think this is the experience of physicians in the large hospitals, and every physician should pay strict attention to it. Physicians in general practice see so few of these cases that they do not regard them with the same gravity as does the specialist who sees so many. I remember last summer two infants being brought to my office within a week with the sight of both eyes totally destroyed from this disease. To avoid this it is not too much, it seems to me, to ask every physician to take these precautions; and if they will, I believe they will be usually able to prevent the occurrence of severe cases. Of course if such do appear they need urgent and thorough treatment. Drop in nitrate of silver, and if nitrate of silver is not sufficient the eyes must be thoroughly cleansed with either a bichloride or boracic acid solution every half hour or hour while the purulent condition remains. The point that I have specially tried to bring out in my short paper is the importance of the correction of the first tendency to strabismus. Upon the first symptoms of deviation of the eye in children the eyes should be examined for any anomalous condition; and if this is done a very large percentage of cases of strabimus that come up for operation will be prevented. The cylinder will relieve the tendency to contraction of the internal recti-muscles, the eye be freed from the strain, and future trouble or blindness of one eye be avoided, as well as the necessity of a future operation, which is of considerable gravity as regards the vision of the eye.

Dr. Powell, of Marysville: I would like to ask Dr. Briggs whether in ordinary cases occurring in private practice, where there is no suspicion of syphilitic trouble and apparently no purulent discharge, he would always take the precaution he mentions, particularly the use of nitrate of silver.

Dr. W. E. Briggs, of Sacramento: I believe it is better to take these precautions. Personally I believe a great many cases of ophthalmia neonatorum are not specific. I believe there are a great many other causes for it than gonorrhea. For that reason I think the eyes ought to be cleansed and all irritating secretions, if possible, prevented from getting into them. If one is sure there is no gonorrheal trouble and never has been any inflammation, I do not think it so essential. But I do not think we can be too sure. Often there are undetected gonorrheal secretions where you cannot get any history of gonorrheal trouble. I believe even if there is not a specific history it is advisable to take the precautions named, because they will not do any harm and their employment will frequently avoid serious trouble.

Dr. Parkinson, of Sacramento: In one of the cases which I have mentioned

Dr. Briggs did not succeed in curing it in less than three weeks. Here there was absolutely no suspicion of gonorrheal trouble in the family, and the mother, previous to her labor, had not even been troubled much with leucorrhea. In that case I washed the child's eyes out myself with bichloride of mercury solution, but, in spite of all precautions, the child had ophthalmia, and the attack was quite severe on one side.

The Climate of the Sierra Nevada Foothills and Its Influence on the Diseases of the Respiratory Organs.—R. F. ROONEY, of Auburn, read a paper upon this subject. It was accompanied by a number of tables illustrating the monthly and seasonal averages extending over a number of years, the data presented relating to Auburn. The speaker said the topic upon which he had been requested to write was not a congenial one, as any favorable comments that he might make would naturally be regarded with some suspicion. At the outset, he distinctly disclaimed any intention of implying that the climate of Auburn differed from that to be found at many places in the foothills, both north and south, at similar altitudes, and presenting equally favorable conditions of drainage, good water, and sunshine. The altitude of Auburn, which is situated on the divide between Bear river, upon the north, and the American river upon the south, is from 1,000 to 1,300 feet. Its situation at that altitude made it frequently mentioned as "above the fog and below the snow." Its winter climate was unsurpassed in the State, and, therefore, on the continent. Facing the south, it received ample sunshine during the colder months, while the porous nature of its soil—a red loam—and the ample natural drainage, rapidly dried the ground after the winter storms. In summer the air, even in the hot months, was always bracing, and upon the hottest days, owing to the dryness of the air, invalids never experienced the depression accompanying high temperatures, the cool nights at that season always insuring refreshing sleep. During the time covered by the tables, snow that remaiued upon the ground had only been observed upon one day, and then remained without melting for 12 hours. Its practical freedom from fogs showed the superiority of this climate, as but seven days, annually, show traces of the winter fogs, which, for weeks at a time, will cover the great interior valleys. This fact was of great benefit in selecting a climate for asthmatics, as that disease is invariably aggravated by fog or greatly increased humidity. He had never seen a case of asthmatic trouble originating *de novo* in the foothills. In phthisis, where not too far advanced, marked benefit was usually experienced, but in the later stages it was wrong, and even cruel, to advise the sufferers to leave the comforts of their homes to seek relief in any climate. Cases of bronchitis, coming from the trying summer climate to this coast, do well, and generally need only a short sojourn in the drier atmosphere to produce a marked change. So rapid, in fact, was this amelioration that the subjects frequently returned to their homes before a permanent cure had been established.

DR. JOHN FIFE, of Red Bluff, who had been requested to open the discussion, said: I am not at all familliar with the climate of the foothills of the Sierras, as I live in the valley and do not feel competent to speak on it.

DR. J. H. PARKINSON, of Sacramento. Like Dr. Fife I live in the valley, but I cannot say I do not know anything of the climate of the foothills. In California we have so much good climate that we are apt to ignore the atmospheric advantages at our own doors in favor of those of some distant locality. The facts and figures Dr. Rooney has presented go to show that in the foothills, between an elevation of one thousand feet and the line of early snowfall, we have a location exceedingly valuable in the treatment of pulmonary complaints, not only where there are specific troubles of that character, but where a light, bracing atmosphere is needed and where the heavier air of the sea coast, or a more robust climate, would not be so beneficial. The one thing which, perhaps, is wanting to make the climate more generally adapted to the invalid is proper accommodations. Auburn possesses hotels of more than average character, as I can personally testify, but we need something more. We need a place especially adapted to invalids, containing the numerous accessories for their comfort that have been found a profitable investment in other States; and I hope the time will come when parties will find it to their pecuniary interest to create such an establishment, which I feel certain would be well patronized. Auburn presents many of the features desirous for such an establishment, and for several years past it has been the custom of physicians in San Francisco and in Oakland to send cases of bronchial trouble and of consumption in the early stages to that locality. As Dr. Rooney says, there is a belt of foothill country presenting similar climatic advantages; but the peculiar advantages of Auburn are convenience of access, good water, good drainage, and, I might add, excellent local talent in the medical profession.

Dr. H. D. Lawhead, of Woodland: Not only pulmonary but nasal and laryngeal troubles are benefited by a sojourn in the climate of the Sierra foothills. In my limited experience I have had a number of cases which were greatly benefited by passing the summer or fall season there. Auburn, however, is not the only place which presents these advantages; there are many others of equal attractiveness.

Dr. W. W. Macfarlane, of Woodland: When in San Antonio, Texas, some twelve years ago, I met an old physician and I asked him why it was, in view of the fact that so many who had come there from 1830 to 1870 for the benefit of their health had recovered entirely, such was not now the case? His reply was "hotels." He said that from 1830 to 1860 and 1870 every one who came to San Antonio to be cured of lung trouble would ride a mustang all day and sleep in blankets under the stars at night; that that exercise and the sleep in the open air was the principal reason for their recovery; and that since they had built such fine hotels, with all modern improvements, all that had been done away with, and patients were but little benefited by the climate.

Dr. N. Watts, of Chico: Last season I had a very severe attack of bronchitis, and went to Bartlett Springs; was there five or six weeks and was cured. If I had a patient for whom I wished a change of climate for a month or so, I would send him there.

Dr. O. Rohm: The same conditions that apply to Auburn apply to nearly all the foothill country, up to an elevation of 3000 or 4000 feet. I am practising on the Upper Sacramento, and bronchitis is almost entirely unknown there, except among persons recently from the valley.

Dr. J. E. Rodley, of Chico: I never saw a case of asthma in Chico or its surroundings, and I have been there for nearly seven years.

Dr. Watts, of Chico: I have known persons to come there from the East who were troubled with asthma, but after a short stay it would usually leave them, though sometimes they had to go to the mountains.

Dr. J. S. Cameron, of Red Bluff: I have been what I may call a "mineral spring sharp" for a number of years, and can testify to the virtues of a number of springs. For rheumatism, I should recommend Klamath Hot Springs; for kidney disease, Bartlett Springs; for skin disease, Tuscan Springs, and for dudes, Napa Soda Springs. Aside from the difference in the waters of the various springs, the climate in certain places suits certain conditions, and does not in others, and this must be studied in order to meet with success.

Dr. Rooney, of Auburn: I do not intend to claim any peculiar advantages for Auburn. What I claim for that place I simply back up with statistics of the climate there for a series of years. But there is one thing I would like to say in regard to any locality resorted to by consumptives. They will all, I believe, become infected with the tubercle bacillus. You never saw a consumptive yet but would expectorate in some open place where he could look at it. He will do that in hotel halls, on the porches and on the lawns; not in the grass, mind you, but on the paths. The expectoration dries up under the influence of the sun and wind and the next one who comes along inhales it. And if the soil is suitable, there is the germ that produces the crop. Therefore I fear, with the great accession of consumptives to this State, that the soil at places where they resort will become more or less infected with tuberculosis. In every cemetery where the consumptive is buried the worms will bring the germs to the surface. For that reason I am a strong advocate of cremation. No consumptive should ever be buried in the earth; the body should be cremated and all these germs destroyed. The sputum of a consumptive patient should alway be placed in a vessel and, if possible, burned, or thoroughly disinfected and buried. There are a good many of these things which must be attended to in the future. We must teach the people hygiene; teach them the proper way in which to dispose of the body after death.

Head or Brain Injuries.—S. J. S. Rogers, of Marysville, read a paper on this subject, in which he discussed the relations of traumatism to epilepsy, more particularly in cases where the injury had preceded the disease by many years. He alluded to the Buchanan case, and also quoted from the well-known "crowbar" case as illustrating this point.

Dr. W. W. Macfarlane, of Woodland: I hardly know how to open the discussion except, beginning back of where Dr. Rogers commences, by saying that all cases of punctured or gunshot wounds of the head should be trephined, and all cases of fracture, whether there is depression or not, if there is serious brain complication manifested soon after in any way, should be trephined. If there is depression without brain complication, it is a question whether or not trephining should be resorted to. It is not the evident cases of fractured skull that are the most difficult to diagnose. Any one who sees a fractured skull generally knows what to do, if it is an open wound especially. But if it is what is frequently considered a slight wound, there may be no depression apparent but there may be brain trouble, that will ultimately, as the doctor states in his paper, bring on epilepsy; and cases of epilepsy caused from a depression of the skull will never improve—I have never known one to —but will constantly get worse as long as there is life. But if trephining is resorted to in these cases, and the skull be raised, the probabilities are that the person will get well entirely and will never have epilepsy. Otherwise, as the doctor remarks in his paper, though they may not have epilepsy for several years after, it, or some form of insanity, will ultimately come on. I have seen a good many cases of gunshot wounds and other injuries to the head. I remember one, the case of an old man who was a section hand on a railroad. He started to climb up the side of a cut in the winter time, and, it being slippery, fell back, and the cow-catcher of a passing train struck him and knocked out about three inches square of skull over his right eye. That man was taken on the train and carried into town, a distance of five miles, and there walked from the station to his boarding-house, a distance of about six blocks. He was never unconscious for a moment from the time he was hurt until he recovered; and he was entirely well when I last saw him, several years afterwards. I do not know what treatment he received, but that was before the days of antiseptics. It is in the cases that do not seem to be very severe, that you have to be very careful in making a prognosis. For example: A man received a charge of very fine shot in the back of his head, at a range of almost thirty feet. We could not find, by probing, where any shot had entered the skull, and the man seemed to be perfectly well as soon as he got over the sudden effect of the blow, and seemed so for five or six days. Suddenly he was taken worse and died in a few hours. It seems one shot, so small that the probe would not enter the hole, had gone into the skull. I recollect another case where a man was standing with his hand over the muzzle of his gun, with the butt on a railroad tie, off which it slipped, causing the charge to explode, tearing his hand very badly, filling his face full of shot and blinding one eye. I picked a very large number of shot from his face and from under his chin; and his hand healed up, and he was apparently well. But fifty-two days after the accident, he was taken suddenly ill with a very severe headache, and died in a very short time. I mention these two cases to show that we should be very careful in making our prognosis in brain injuries.

Dr. C. H. Gibbons, of Arbuckle: The following case is, I believe, unique in several respects. About ten days ago a boy twelve years of age, while running, fell toward a horse, which kicked, striking the boy on the left parietal bone, cutting a gash through the scalp and driving a triangular piece of skull, about one and one-half inches on each side, down into the brain. I was called to see the boy, and, of course, told them he would die in a few hours; but, wishing to do something, I put in a couple of stitches to draw the scalp together, and went home. The next morning I was again called to attend him, as they thought he was better. I went in company with Dr. W. H. Belton of Colusa, and found the boy without any signs of coma, his respiration and pulse being good. We concluded to try and raise the piece of bone. Chloroform was administered, and we found the bone wedged between the sphenoid and the side of the parietal bone; but, as the boy seemed to be sinking, desisted, to prevent his dying on the table. We told them he would probably die before night, and went home. The next morning we were again sent for. Not to go into further details, the patient recovered without any unpleasant signs or symptoms. He is now clerking in a store in Colusa. I asked his father lately if he saw any difference in the mental condition of the boy since the injury, and he told me he thought he was, if anything, smarter than before. The bone still remains in the boy's head. Dr. Belton considers it the most remarkable case of which he has any knowledge, with the exception of the familiar crowbar case. In attempting to raise the bone, when we opened the skull, probably one and one-half ounces of brain matter ran out on the table.

DR. ROGERS, of Marysville: The conclusions I wished to draw were mainly these: That we see a great many cases of epilepsy that we cannot easily account for, but, from what I have seen of epileptics, I am satisfied the foundation of epilepsy in after years is often laid in childhood by the carelessness of children in hitting their heads unusually hard when at play. We have all seen them do that; we have frequently seen them fall and lie for a few moments unconscious, or apparently so, and then get up and cry a little and go on with their play again. I have become satisfied that in many instances the concussion then received lays the foundation for epilepsy in after life.

The Dietetic and Therapeutic Management of Typhoid Fever.—THOS. ROSS, of Sacramento, in a lengthy paper upon this subject, said: The gravity of this disease, whose germs may live indefinitely in any climate, and under the most unfavorable conditions, together with its universal distribution, rendered the treatment of such a formidable affection of great interest to the physician. It is said that typhoid fever annually causes the death of fifty thousand people in this country, and it was certain the number of cases in any community was directly proportionate to the insanitary condition of the locality. The origin of the disease was now generally accepted, the source of infection in a great many cases being the water supply. Filthy surroundings and bad sewerage were favorable conditions for the development of the disease and the multiplication of its germs. Reliance should, therefore, not be placed upon pure water alone. In this disease the dietetic treatment was of paramount importance. Fluid foods, nourishing and easily digested, and leaving the smallest amount of waste matter to be carried through the intestine, were most appropriate. Among this class, milk is entitled to first place. It should be first boiled and then diluted with lime water. Fairchild's tubes afford an elegant and efficient means of preparing milk for the most delicate stomachs. Alcohol was a food in this disease, supplying oxygen and preventing tissue waste. It should generally be given in the second week. He discussed the therapeutic management of the disease under four heads: the antipyretic, antiseptic, hydro-therapeutic, and the symptomatic. The continued high temperature tended to depress the patient, as well as producing lowered tone in all the functions of the internal organs. The coal-tar derivatives have been highly extolled and extensively used in the treatment of typhoid fever; but, while lowering the temperature, they had no influence on the severity of the attack, and at the same time they depressed the action of the heart, already weakened. Quinine seemed to have no result whatever in influencing the temperature. Amongst the antiseptics, many had been recommended. Calomel, in large doses at the commencement of the attack, had been mentioned as mitigating its subsequent severity. The mineral acids seem indicated on physiological grounds. Beta-naphthol, in large doses, has been claimed to have greatly lessened the severity of the disease. The sulpho-carbolate of zinc was also an intestinal antiseptic. Reference was also made to the recent use of antitoxins, but sufficient experience had not as yet been afforded to test these results. The use of baths in reducing temperature, as well as the sedative effect of the water on the cutaneous surface of the body, had long been known, and it had been claimed that patients treated systematically during the first week showed a death rate of only one per cent. Cold baths, however, must be used with judgment, the presence of grave complications, as intestinal hemorrhage, contraindicating their use. This method of treatment was exceedingly difficult to carry out in private practice. The symptomatic treatment was the rational one to adopt in the management of the disease, being always careful to do no harm. Hyperpyrexia, tympanites, intestinal hemorrhage, diarrhea, constipation, epistaxis, headache and insomnia must all be met with appropriate measures. During convalescence, owing to the protracted character of the disease and its depressing effects, great care should be taken to guard against exposure to any injurious influence.

DR. O. STANSBURY, of Chico: The treatment of typhoid fever calls for good nursing and proper food more than medicine, and I think that is the grand step in advance that the profession is making to-day. It should be regarded, I think, as a self-limited disease; one that you cannot cut short. That has been my experience; and I think attention to proper nursing, putting the patient to bed early and keeping him there, are all important. I must admit that I am somewhat at sea with regard to the use of antipyretics in controlling the fever. With children I have used them with considerable benefit, but in adults they do not seem to act so well. There is one objection to them: you are unable to determine just how the fever is running. You are constantly lowering the temperature, and feel somewhat relieved to know it is kept down, when it is perhaps, due to the action of the drug, which at the same time is depressing. So I am disposed to discard their use and to rely on bathing and cold water applications, which I think control the temperature in the majority of cases. There is one thing I think good in the treatment of this fever, particularly in the Sacramento Valley. That is the moderate use of quinine. I admit I cannot control the fever with it, but it seems to have a good effect. I do not believe in giving it in heroic doses, but rather in keeping the patient somewhat under its influence for the first three weeks, or perhaps longer. The diet in these cases is all important; and milk, combined with lime water or with some mineral water, such as Napa soda, is the ideal. I give that freely. In these cases a great quantity of liquid is required. It is agreeable to the patient, and seems to flush out the kidneys and carry off the poisonous matter in that way. By proper attention to the diet, we get rid of the tendency to diarrhea. I think of late years there has been a tendency to discard the use of chicken broth and beef tea, on which we formerly relied principally; and when we did that, we had a great deal more trouble with diarrhea than we have now, when we use milk so extensively. Intestinal antiseptics are good where there is diarrhea and very offensive discharges. You should then give some intestinal antiseptic, such as hydronaphthol, which is excellent, a very few doses removing the offensiveness. I do not believe in the use of stimulants, as I think they are generally an injury to the patient. In some cases, where you have a weak condition of the heart, it is of course absolutely necessary to give them, and to give them freely; but unless there is some trouble of that kind, I doubt very much whether it is beneficial to commence them in the early stages of the disease. In the later stages, where the patient becomes very weak, stimulants are good.

Dr. J. H. Parkinson, of Sacramento: There are complications in typhoid fever that always demand special treatment; but with the profession to-day attention to the diet, the use of antiseptics, and some method of lowering the temperature, are the leading features in the management of this very serious disease. The author of the paper mentions milk, plain, and combined with an alkali, as a suitable diet. The first, I have frequently used; and prepared by peptonizing with the Fairchild digestive tubes, it is an ideal diet. I prefer also to give, as a precautionary measure, some intestinal antiseptic as hydronaphthol, frequently combined with salol. In controlling the temperature, from my limited experience, I must say I differ with the author of the paper and with the last speaker. I have had extremely satisfactory results, both with adults and children, from the use of phenacetin, giving it, of course, with that watchful precaution which should govern the administration of any such agent, but giving it continuously. I think the patient has more comfort, and I always feel that the complications we frequently meet with in such cases are less likely to arise with the temperature kept at about 100° F., than when allowed to range higher. It is true that where giving the drug continuously, we are ignorant of the real temperature. But there are two methods by which this objection—to which I attach no particular weight—may be overcome: One, by suspending the administration of the drug for a period of hours; another, by noting the amount of the drug necessary to keep the temperature at about that figure. If that amount be small it may be taken as an indication that the temperature, without the drug, would not be ranging high. But if it requires large doses, then it is tolerably certain that the temperature, were it not for the remedy, would range high. The only objection I have found to the drug in practice is the rather profuse diaphoresis that ensues; but I think that is much more than compensated for by the refreshing sleep, the lack of headache and the clearer intelligence of the patient, and the satisfaction to both patient and relatives which absence of delirium produces.

The President: For the past two years I have treated typhoid fever systematically with phenacetin, and an experience of 51 cases compels me to dissent most emphatically from the statement made, that it is one of the diseases in which medicine should be used sparingly. Beginning two years ago this coming November, there prevailed in Sacramento an epidemic of typhoid fever. Previously to that, I had used phenacetin, as I believe most physicians now use it, whenever the temperature exceeds a certain maximum—say 103° or 104° F.—but my results from its use left a great deal to be desired. In the first place, the patient sweated profusely, which was unpleasant, to say nothing more; in the second place, as the temperature rose again a chill occurred, which was also unpleasant, and, I believe, deleterious. So two years ago I began to use phenacetin regularly, every two or three hours, in doses sufficient to keep the temperature at about 100°. Occasionally that was impossible, and the temperature would go up to 102°, or even 103° F., for an hour or so in the afternoon and evening. I would then increase the phenacetin up to 10 grains, if necessary, every two or three hours. That may seem a very large dose, but it is the dose I have been accustomed to give; and that I gave in a majority of the 51 cases referred to, not only without a single death, but without any serious complication or sequence. That is, I think, an unusual record for such a number of consecutive cases. Phenacetin does several things: It reduces the temperature promptly; it soothes the nervous system. The patient who, with a higher temperature, is restless, quiets under phenacetin, feels comfortable, and no longer is a source of anxiety to his friends. Not only does it soothe, but if the temperature is kept down near 100° the patient generally—except in those cases which we call gastric, where the stomach is very irritable—will want a greater range of food than the physician is inclined to allow. Delirium is absent. In the 51 cases I have not had any delirium, except in the first case, and that had run for two weeks before it came into my hands. In that case the patient was delirious at the time I took charge, and for several days afterward. In the rest of the 51 cases, delirium did not occur at all. Besides relieving the symptoms mentioned, the use of phenacetin keeps up the digestive powers of the patient; because, if the temperature is kept down, the secretion of the gastric and intestinal juices, which are the best antiseptics, goes on without interruption. It has been said that antipyretics, and particularly those derived from coal tar, impair the strength of the heart's action, and that they are dangerous in typhoid fever. That is undoubtedly true of several of them, particularly of antipyrin, and in a smaller degree of acetanilid; but I believe phenacetin is wholly free from this charge. I have now on my records 3 cases of typhoid fever, among the 51 cases referred to, where there was a relapse and where I administered phenacetin in 10-grain doses, every two or three hours, for about six weeks, and the heart tone was excellent during all that period. If the heart shows any sign of lowering of tone, combine the phenacetin with digitalis and it will serve every purpose. Diaphoresis, which one member has spoken of in the discussion, is wholly obviated by the continuous and full effect of phenacetin. With that continuous and full effect, you have no more sweating with a typhoid fever patient than you would have with a person in ordinary health. If you allow the patient to come partly out from under the influence of the phenacetin, and then give a full dose, you will have a very profuse and most likely a very debilitating sweat. As to intestinal antiseptics, I will not say I have wholly discarded them, but still I fear them. I have seen two cases of marked collapse from 30 grains of salol, given during 24 hours, in 2½ grain doses every two hours, or 3¾ grain doses every three hours; and I believe in this disease you will be more likely to get renal irritation and smoky urine from salol, because the kidneys are taxed to their utmost with the products of retrograde metamorphosis which are passed largely through them, and if you add to those products an irritating drug like salol, you will be likely to set up a condition of the kidneys which will be detrimental to your patient. Quinine I believe of very little use in typhoid fever, unless there be a malarial complication. I must confess that in the cases referred to I have not administered quinine more than four or five times, and then only at the outset, when I suspected a malarial complication. The dietetic and hygienic management of this fever is, of course, of the utmost importance; and I would not for a moment have you infer from what I have said, that I belittle it. On the contrary, I observe the same rules that I presume all of you do in regard to diet, in regard to rest, both mental and physical, and in regard to the condition of the digestive canal generally. But from an observation covering 51 consecutive cases, I must say that I have the utmost confidence in phenacetin relieving the unpleasant features of typhoid fever. In some cases, giving 10 grains every two or three hours, you will have a slight blueness such as you have in the administration of acetanilid, and at first this inclined me to diminish the dose of phenacetin; but now I pay very little attention to it, and now frequently a patient under my care with typhoid fever is slightly bluish for several days. This may seem extravagant, but the experience I have had makes me very strong in the conviction that the reduction of temperature by phenacetin is a distinct advance in the therapy of typhoid fever. Recently I have seen that lactophenin has been employed for the same purposes: reduction of the temperature and calming of the nervous system; and German observers are even inclined to think, if the reports are correct, that it abridges the disease; but I think that will prove to be an error. I believe it will be found to have very much the same effect as phenacetin, and I have not observed that phenacetin abridges typhoid fever for a moment. It prevents complications and sequels, but the disease itself I do not believe is cut short by it.

Dr. T. P. Peary, of Yuba City: I have never attempted to abridge this disease, nor to prevent the temperature from rising until it got above 102° F., when I used cold water; and where I could not keep it down in that way, I used antipyrin, giving one or two doses—just enough for the occasion. We all know, of course, that antipyrin has the objectionable features mentioned. I have been in the habit of giving quinine occasionally, but not in large doses. In the beginning it was likely to require a few days to determine whether it was malarial or some other fever. In such cases, supposing it to be malarial fever, I have given quinine, and calomel to clear out the alimentary canal; after that, I have continued the quinine, in small doses, combined with chlorate of potash and opium—something that may be deemed objectionable, perhaps, as impairing the digestion, but I find it soothes the system and acts better than quinine alone in toning it up. Where the temperature ranges at 101° F., or even less, I have never found any necessity for the incessant use of antipyretics, but I find a little opium quiets the nervous system and makes the patient tolerate the disease better. While the use of antipyretics is deprecated because of being depressing to the heart, there is an excuse for their employment, from the fact that they keep down the extreme temperature, and nothing is more depressing to the heart's action than high temperature itself. I have, therefore, used them right along. I have used them the second week, when the heart sounds became faint.

Dr. R. F. Rooney, of Auburn: In the mountains we apparently do not have any cases of typhoid fever. I do not think in Auburn and vicinity we have more than 4 or 5 cases in a year, and when those come to be divided up among the local practitioners, it does not average one apiece. Our experience with the disease is, therefore, not extensive. But the cold and uncompromising statement of our President, that he has used phenacetin in more than 50 cases, with an agreeable effect on the patient, an avoidance of diaphoresis, and an unfailing cure, has stirred me up, and the first case of typhoid fever I have I am going to try it, even if it be opposed to the general ideas of the profession as I understand them now. I give much weight to the views of the President, from the fact that he has used it so continuously and with such invariably good effect. But if the patient I try it on should die under the treatment, I shall blame the President for it.

Dr. W. E. Bates, of Davisville: I shall come to the rescue of the President. I have used the same remedy for the last three or four years, both in typhoid fever and in pneumonia. Phenacetin has a most salutary effect. Occasionally I have been called in consultation, and have given it to a patient who had not been using it before, and the change has always been immediate and satisfactory to him and to his friends.

Dr. H. D. Lawhead, of Woodland: Hearing of the great success from the use of phenacetin regularly and systematically in cases of this kind, and soon after having a case of typhoid fever, I tried it. Being afraid of 10-grain doses, however, I tried 8-grain doses. But the patient became cyanotic, and remained cyanotic, and died. That may not have been due to the treatment, and, perhaps, it was not undertaken soon enough. I only mention it because the President himself advises us to be discreet in the beginning in the use of phenacetin. It seemed to me that, while diaphoresis was very marked from the use of phenacetin, the other secretions seemed to be in abeyance, and that, while the urine was very heavily loaded, the quantity voided was less and the color higher, and those conditions present caused me to suspect that its action was not alike stimulating to the various secretions of the body. In giving drinks, where you want to cool and satisfy the patient, I have sometimes found very great help from the use of flaxseed lemonade. The patient can tolerate it very well, and sometimes it will be very soothing to him.

Dr. J. E. Rodley, of Chico: I would like to ask the President if, in the 51 cases of typhoid fever he treated so successfully, he used any treatment other than phenacetin.

The President: No other stomach treatment and no other antipyretic, except sponging with alcohol, which has been used almost uniformly.

Dr. Rodley: I should be afraid to put a patient on phenacetin and have him continue on it. I have treated a good many cases of typhoid fever, and I have had a reasonable amount of success. My treatment, when I am satisfied that I have a case of it on my hands, is this: I put my patient on sulpho-carbolate of zinc, 2-grain doses every three hours. If the temperature is high in the afternoon, which it generally is, I leave instructions to give quinine with digitalis. I combine it in a fluid mixture and give them together. Being afraid of the effect of quinine on the heart, I never allow it to be given constantly; but wherever there seems to be a rising in the temperature, I leave instructions to give it if the fever comes up to 103°, and to keep it down below that with it. I find in all cases that I get better results and less bowel trouble, when I use the sulpho-carbolate of zinc. In the diet, I use cream. I discard milk; I am afraid of it. The amount of casein that milk contains, causes it to form masses in the bowels that may give rise to trouble; consequently, I give cream and get better results from it. It is very nourishing; it contains hardly any casein, is easily digested, and is more strengthening than milk.

Dr. T. W. Huntington, of Sacramento, read a paper on "Tenorraphy, with a Report of Four Cases" [published at p. 644].

Dr. W. E. Bates, of Davisville: In secondary operations for tenorraphy, it is recommended that the incision through the skin be made either above or below the incision in the tendon, so that the two scars will not unite, but be one above the other. There is another method of elongating the tendons, recommended by a German authority. Instead of cutting clear through, as Dr. Huntington showed in his illustration, I will send around one which shows a partial incision, which makes an S shape on the tendon. In that way there is a continuation of the tendon. Harris, of Chicago, in uniting these tendons, prefers the finest silk possible, and in carrying the needle through, pulling the ends as close together as possible, and burying the knot between them. Of course he insists that the thread must be perfectly aseptic, and it must be as fine as possible, and yet strong enough to hold with what he believes the proper tension on it. He uses a round needle, an ordinary sewing needle, for that purpose. In some cases of tenotomy, the tendon can be attached to that of another muscle, with satisfactory results.

Gangrene of the Scrotum, with Erysipelas.—T. W. Serviss, of Oroville, reported this case and exhibited photographs of the condition. The patient, a miner, aged 49, was admitted to the Butte County Hospital, January 12, 1894. The scrotum was immensely swollen and black, with a fetid odor. The penis was also swollen, and paraphimosis, with a gangrene of the skin on the right side, including one-half the circumference and extending the whole length of the organ, was also observed. The erysipelatous inflammation passed up upon the abdomen as high as the umbilicus and down upon the thigh to the middle third. There was a diffuse abscess in the cellular tissue of the abdominal wall above the pubis. From this a quantity of fetid pus and gangrenous areolar tissue was evacuated. The parts were dressed with a bichloride solution (1:2000). In about one week, the scrotum, together with the skin on the right side of the penis came away, leaving both testes exposed, and an opening into the urethra at the base of the penis about the size of a ten-cent piece. The abscess cavity above the pubis now discharged along the cord on the right side. The parts were dressed with aristol, being first irrigated with a weak bichloride solution.

In about three weeks the testicles were covered with granulations. The left testicle was drawn up into the external ring, the right testicle was covered by a small piece of the skin remaining on that side, which gradually extended over. The other complications in the case were now taken up, but before a cure had been effected, the patient left the hospital.

EVENING SESSION.

Treatment of Gonorrhea by Retrojection.—W. J. HANNA, of Sacramento, read a paper upon this subject. He first discussed the etiology of the disease as well as its bacteriology. The gonococcus was recognized as the specific cause of the disease. The discharge of infectious urethritis, due to other causes and running a much milder course, being free from this specific organism. The ordinary method of treating gonorrhea by injection included almost every remedy in the materia medica. The tendency of this injection was to carry the products of the inflammation backward along the canal, causing numerous complications. Continuous irrigation had been tried as early as 1864, but it had not proved successful, and later, retrojection with an ordinary catheter and bulb syringe had been found very satisfactory. The object to be gained by retrojection was the complete distension of the urethra with a mild antiseptic fluid, the constant current of which at the same time washed away the products of the inflammation. The necessary apparatus consisted of a reservoir, a connecting tube, and a urethral tube having a bulbous tip with openings directed backward. This tube, well oiled, is then passed down the urethra for a distance varying with the stage of the disease, and one to two quarts of a listerine solution (3 to 6 per cent.) was allowed to flow through the tube. At times during the flow the patient was instructed to compress the end of the urethra so as to thoroughly distend the canal. The irrigations should be repeated at least once in the 24 hours. In acute cases, begun early, the character of the discharge would change in a few days, after which the irrigation is discontinued, and a solution of zinc chloride (2 grains to the ounce) is passed through the retrojection tube by means of a syringe, 4 ounces of the fluid being used. The result of this method of treatment was to allay the inflammation, as well as to modify the discharge, so that the disease, as a rule, is cured within two weeks.

Annual Address.—The President, W. A. BRIGGS, of Sacramento, read the Annual Address [published at p. 637], which, owing to his absence at the morning session, had been postponed till the close of the meeting. He had taken as his subject "Misplaced Pregnancy, with a Report of a Case," entering at some length into the pathology of this condition.

Secretary's Report.—The Secretary, E. E. STONE, of Marysville, submitted his annual report. He said the Society had been organized a little less than four years, during which time the membership has had a steady growth. At the first meeting, in Marysville, May 26, 1891, there were 18 members; there were now 53. The Society has held its meetings in Marysville, Chico, Biggs, Sacramento and Woodland, and the proceedings have been published in full in the OCCIDENTAL MEDICAL TIMES, the official organ of the Society.

Treasurer's Report.—The report of the Treasurer, O. STANSBURY, of Chico, showed that the Society had received during the year $129.00, and disbursed $123.15, leaving a balance on hand of $51.30.

Place of Next Meeting.—An invitation from the San Joaquin County Medical Society, requesting that the District Society hold its next meeting in Stockton, was presented by the Secretary. On motion, the invitation was unanimously accepted.

Election of Officers.—The Society then proceeded to the election of officers, with the following result:

President	H. D. LAWHEAD.
First Vice-President	JOHN FIFE.
Second Vice-President	T. P. PEARY.
Third Vice-President	A. W. HOISHOLT.
Secretary	E. E. STONE.
Treasurer	O. STANSBURY.
Board of Censors	W. E. BRIGGS, W. E. BATES, G. W. STRATTON, T. B. REARDON, THOS. ROSS.

Installation of Officers.—The regular business of the meeting having been concluded, the retiring President, W. A. BRIGGS, of Sacramento, in a brief congratulatory speech, introduced the President, H. D. LAWHEAD, of Woodland. Dr. Lawhead, in replying, expressed his earnest intention of devoting every energy to the advancement of the interests of the Society, and assured his audience that any failure on his part would only be due to lack of experience. The Society then formally adjourned, to meet in Stockton on the second Tuesday of March, 1895.

New Members.—At the different sessions the following were duly elected members of the Society:

J. H. BARR,	I. S. JADARALOA,	J. A. RANDOLF,
J. C. CAMERON,	S. B. LITTLEPAGE,	J. T. ROHM.
JOHN FIFE,		

SPECIAL CORRESPONDENCE.

BERLIN.

The Feriencurse.—Post-Graduate Instruction at Home and Abroad.—Nitze and Cystocopy.—Catheterization of the Ureters.—The Urethroscope and Its Practical Application.—The Janet Method in Gonorrhea.—The Estimation of the Pus Corpuscles in Genito-urinary Diseases.—The Pathological Institute.—Phaneroscopy.

The "Feriencurse" for physicians began on the 24th of last month and will continue until the 27th of September. Two such courses are given each year. Instruction is usually intrusted to assistants who have a prodigious amount of material at their command. Extra mural instruction is also given by many physicians not connected with the University of Berlin. The Germans are properly educated with reference to hospitals, and are exempt from that false prejudice which prevails in our country. Private clinics are abundant. To my knowledge there are about 20 of these in Berlin. The specialist here, inaugurates his career by establishing a polyclinic, which conveys the meaning, that special hours of the day are reserved for the treatment of the indigent poor. The upshot of the entire matter is, that one specialist vies with the other in accumulating the greatest amount of material, bestowing little regard to the financial status of his patient.

I have in a previous letter made a comparison between the post-graduate courses in London, and those in many cities of the United States. The views then expressed are equally applicable when Berlin is taken as a standard for comparison. No American physician, unless in exceptional instances, or to attain the prestige attached to European medical education, need go beyond the confines of the United States for post-graduate medical instruction. At home this is systematized, while here the courses correspond in a measure with the preliminary sessions of under-graduate medical schools in the United States. That this fact is amply recognized, is illustrated by the comparatively limited migration of American physicians to Europe, for the purpose of medical study. It is undeniable, that in many branches, as physiology, bacteriology, and pathology, the home market is still unproductive. The practical physician, however, has neither the time nor the inclination to pursue the details of branches which he recognizes as theoretical. The essentials of physiology, pathology and bacteriology he can learn at home. When I worked in Prof. Arnold's laboratory in Heidelberg ten years ago, it was known as the "American Laboratory." At that time the Americans frequently exceeded the Germans in number, and Heidelberg always has been a favorite rendezvous for American physicians. In a conversation with Prof. Arnold a few weeks ago, he assured me, that the number of American physicians who did work in pathological anatomy at his laboratory was diminishing each year. This falling off in attendance, he attributed to the improved facilities for such instruction in the United States. "When the professors of such branches as anatomy, physiology and pathology," said he, "can devote themselves solely to their respective subjects, the preëminence of American medicine will be assured."

Among the many special practical branches taught during the "Feriencurse," perhaps the most novel is that of genito-urinary surgery, which includes, of course, the use of the urethroscope and cystoscope. The man who has attained special prominence in this line of work is Nitze, a privat-docent at the University. To him, in fact, is due the practical applicability of the cystoscope. His dexterity with the instrument is such, that he is not content with a mere illumination of the bladder for diagnostic purposes, but he essays to do things which to others is almost impossible. He catheterizes the ureters with his special cystoscope, and by means of his operating cystoscope, he removes growths from the bladder with the same certainty as could be accomplished by sectio alta. I saw him remove a polypus from the bladder by means of a snare, in the case of a man who suffered from hematuria. Aside from the many advantages of such an operation, for both physician and patient, the observer regarding the maneuvers from an artistic standpoint, simply marvels at the completeness of his manual dexterity. He has, thus far, refrained from publishing the results with his operating cystoscope, fearing no doubt the misuse to which this instrument would be put in unskilled hands. He is pedantically aseptic in his operations, and he is modest enough to attribute much of his success to that fact.

Kidney surgery has been revolutionized by the use of the cystoscope. By means of a specially constructed cystoscope, he can introduce a catheter into the ureter and is thus able to separate the urine from either kidney. This manipulation, as is well known, has, heretofore, only been accomplished successfully in the female. The cystoscope will also furnish evidence of the existence of two kidneys as well as of their action. This fact, apparently unimportant, is of the greatest value. I vividly recall the case of a gentleman in the precystoscopic period, who was operated upon by an eminent German surgeon for a pyonephrosis. This gentleman had unfortunately only one kidney, and that was the one which was removed. In many cases of pyuria or hematuria of renal origin, the descending pus or blood so obliterates the field of vision, that it is often impossible to formulate conclusions from cystoscopic examination. This inconvenience is obviated by an irrigation cystoscope invented by Nitze. The latter has recently published a cystophotographic atlas containing sixty photogravures of the interior of the bladder. This photographical reproduction of the interior of the bladder by means of the photographic cystoscope, are not artificial, but reproduce the actual appearance of the bladder interior. The advantages achieved by cystophotography are manifold. In the first place, photographic reproductions of cystoscopic pictures will prove of great value for educational purposes. A good photograph will prevent mistakes or misinterpretation. Photographs will give a graphic record of the evolution or involution of a pathological process. They will also furnish evidence of a pathological condition, which could not be achieved by description, however diffuse.

The urethroscope, notwithstanding its extensive employment, still continues to prove of little practical value to the physician. Thus far, its real use has been limited to the anterior urethra, and as most of the pathological processes in this part of the urethra are submucous, they elude inspection. Circumscribed affections of the urethra, however, such as ulcerations and new growths are only demonstrable by aid of the urethroscope. The most serviceable urethroscope is the simple glass tube of Posner, through which light is thrown by means of a concave mirror from an Argand burner. The results attained by this simple means are equally as good as those achieved by more complicated apparatus. The original urethroscope of Nitze, with which illumination was secured within the urethra by a heated platinum wired, is no longer employed by him.

The pathogenesis of the gonococcus has been fully established, but as yet all specific remedies recommended for gonorrhea have proved futile. The best treatment now, as before, is the prophylactic. Ricord''s observation, "Une chaude pisse commence, Dieu le sait, quand elle finira" is equally applicable at the present day, notwithstanding the progress made in the pathology of gonorrhea. At the genito-urinary clinic of Posner, a routine treatment for gonorrhea is the Janet method, which consists of irrigating the anterior urethra (in anterior urethritis) with many liters of a solution of permanganate of potash (1:4000). The strength of the solution is gradually increased until a strength of 1 to 1000 is reached. The solution is preferably warmed before being introduced. A simple contrivance enables the solution to escape contin-

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ually after it has fully passed through the course of the anterior urethra. In the beginning it is advisable to irrigate twice daily, and, as the strength of the solution is increased, once daily is considered sufficient. Janet's has yielded better results at this clinic than all other methods of treatment. In urethritis posterior a catheter is carried beyond the compressor urethræ, so that the solution may reach the posterior urethra.

At this clinic the pus corpuscles are enumerated by the Thoma-Zeiss counting apparatus. This enumeration attains two objects. (1) It enables us to estimate the severity of a catarrh of the urinary bladder. (2) It permits us to calculate whether the albumin present in the urine is due wholly to pus, or to a possible renal complication. In bladder catarrh of moderate severity, there are from 20 to 40,000 pus corpuscles in a cubic millimeter. In severe cases, the number counted may reach 100,000. The quantity of albumin present in the urine when due to pus alone, is estimated to amount to 1 pro mille to 100,000 pus corpuscles in a cubic millimeter. Supposing the urine to contain 40,000 pus corpuscles in a cubic millimeter and the albumin present to amount to 2 pro mille, then the latter cannot be due to the liquor puris alone, but must originate from some other source.

Interesting courses can be had at the Pathological Institute, and one can profitably occupy the entire day in the study of pathological anatomy. The courses are given by the assistants of the institute who always have an abundance of material at their command. This is furnished by the Charité, the largest hospital in Germany, which contains 2,000 beds. Thus, at one lecture on intestinal ulcers, Dr. Jürgens demonstrated fresh material illustrative of the subject derived from at least five different subjects. The Pathological Institute founded in 1856, has exerted a profound influence on the development of modern pathology. It was while Virchow was at this institute that he published his "Cellular Pathology." Here it was also, that Cohnheim demonstrated the migration of white blood corpuscles from the blood vessels; that Obermeier discovered the spirillum of relapsing fever, and Liebreich discovered the hypnotic action of chloral hydrate. The Pathological Institute is a disappointment. It is a crude structure and compares unfavorably with many similar institutions in Germany. The crude institute, with its appurtenances equally crude, may survive the illustrious and modest Virchow, but it is equally true, that a modern building is a necessity.

A new method of diagnosis described by Liebreich and denominated by him, "phaneroscopy" is entitled to some consideration. The principle is simple, and consists of concentrating on the skin by means of a plano-convex lens of large aperture, the light from a lamp of medium intensity. This method differs from diaphanoscopic illumination, as in the latter method, the object illuminated is between the light and the eye of the observer. Diaphanoscopic illumination is too diffuse and does not admit of a differentiation of the tissues. Phaneroscopy is combined with glass pressure (vitropressio). If pressure with the finger is made on the skin, any pathological condition which may be present, will escape observation. This objection is eliminated by the employment of pressure with glass. The combined method of phaneroscopy and glass pressure, permits of the detection of a lupus nodule, which would prove impossible by any other means (optical isolation of lupus nodules). The combined method also enables us to determine the situation of the nodules in the skin. Although phaneroscopy is suggested as a method of diagnosis for lupus vulgaris, it is destined to prove of signal value to the dermatologist in many affections of the skin.

A. ABRAMS.

BERLIN, October 5, 1894.

GERMANY.

[FROM OUR OWN CORRESPONDENT.]

Deaths in the Profession.—Hermann von Helmholtz.—Cholera.—An Infant Prodigy.—Legal Difficulties.—A Fight for a Tooth.—Obstetrical Hints.—The Position in Parturition.—Optional Sterility.

During the last few months deaths in the profession have been deplorably numerous. First, there died at the ripe age of 84, Prof. Heinrich Bidder, for many years lecturer on physiology at the University of Dorpat, who, although belonging to this Russian university, was, by reason of his studies in Germany, his publications, and his numerous connections with the Fatherland, always reckoned as a member of the German republic of scientists. Besides, during his term of office Dorpat was essentially a German university; it is only lately that things have changed there, the foreigners having been supplanted by Russians of pure blood, and the former name having now been altered by an imperial ukase into Jurjew. One of Bidder's sons is at present a well known surgeon in Berlin. He himself was principally esteemed for his researches on the chemistry of the digestive juices and the coagulation of blood. Then, in Berlin we have lost Prof. Oscar Fraentzel, one of the most prominent physicians of the university, holding at the same time an important position in the sanitary corps of the Prussian army. His chief works treat on diseases of the heart, in which he followed to some extent on the lines marked by his late teacher, Traube, and on affections of the pleura. I cannot refrain from also mentioning Dr. Heinrich Hoffmann, of Frankfurt o. M., for, although not so renowned on purely scientific grounds, he was one of the most universally esteemed and best known writers in the land as the author of "Struwelpeter," or the "Untidy Peter," a nursery book of rhymes and pictures. I believe there is not a child in the Fatherland that does not know and delight in this book; and the impetus which it has given to providing our little ones with books adapted to their infant understanding has undoubtedly proved a perfect blessing to millions.

We have to record with the deepest regret the death of Hermann von Helmholtz, who died from a profuse hemorrhage of the brain (right hemisphere), on the 8th of last month, at Charlottenburg, near Berlin, at the age of 73. Helmholtz's name is too well known throughout the world to render any eulogy necessary, and, although in the latter portion of his life his researches related more to physics and the other natural sciences than to medicine proper, he has done so much for this department, both directly and indirectly, that we can but speak of him with the most heartfelt gratitude. His most popular discovery is no doubt the ophthalmoscope, which produced a perfect revolution not only in ophthalmology but also in our knowledge of the nerves, and of other affections as well. The first description of this invaluable instrument appeared in 1851, under the title, "Description of an ophthalmoscope (eye-mirror) for the examination of the retina in living subjects." The manner in which he speaks of the circumstances attending the discovery is highly characteristic of his modesty, no less than of his wonderful acumen. As professor of physiology at Königsberg, when he was about to explain to his audience Brücke's theory of the reflection of light from the eye, he was desirous of demonstrating this more clearly by a practical experiment, and being fully convinced of the correctness of Brücke's views, he argued that the only thing wanted was a system of lenses and reflectors in order to get hold, visually, of the reflected picture of the background of the eye. He says that good luck played an unproportionately greater role in this matter than his own merit. But it is clear that he does himself an injustice in this respect, especially as he goes on to say: "Without the firm theoretical conviction that it must be possible, I should, perhaps, not have persevered; but in a about a week I had the great pleasure of being the first to see a living human retina before me." The original ophthalmoscope was a somewhat cumbersome apparatus, constructed of spectacle-lenses and cover glasses, but it fulfilled its purpose and soon grew into the handy form in which we all know it. Truly one can say of him: "*Exegit monumentum aere perennius.*"

Cholera has again been threatening us for the last few months, but, although a number of cases have occurred during the latter part of the summer, we do not seem to be in any imminent danger at present, and now that winter is drawing near even the most pessimistic of hygienists, who had prophesied a speedy return of the Hamburg epidemic, have become calmer. This favorable result is mainly due, no doubt, to the measures adopted by the authorities for the supervision and isolation of all suspicious cases, for quarantine, in the ordinary sense of the word, has not been practised at all. All immigrants, however, especially those coming from Russia, have been carefully examinad by a complete system of medical inspectors distributed on the Vistula, at Hamburg, and at other points of entry to the empire, and no case seems to have been allowed to pass undetected. An animated discussion on this subject took place recently, at the meeting of the Society for Public Health at Madgeburg, though the great fight which raged between the "Contagionists" of the Berlin school, with

Koch and his ardent adherent, Fraenkel, on the one hand, and von Pettenkofer and Emmerich, of Munich, on the other, has gradually lost much of its ardor. The most prominent features of Koch's address on this occasion may be summed up as follows: "The comma bacillus is a necessary factor in the production of the disease; there are a number of other conditions which must also exist before cholera can be produced, some of which are known to us, while others are still an unsolved problem. Conceding, however, the necessity of the presence of a microörganism, we are at once in possession of a means of setting the influence of the unknown agents at nought by destroying this one link of the chain by killing the microbe." The practical results obtained by the measures adopted on these theoretical grounds are certainly a confirmation of Koch's ideas; and he is probably quite right when he continues: "We know that we cannot effectually prevent the introduction of cholera within our frontiers; the greatest weight must, therefore, be laid on counteracting the danger when it arrives. International measures of protection are comparatively futile. The best international protection would be for each State to adopt the plan we are following, viz.: to combat the disease by sanitary arrangements, and to stamp it out by breaking the chain of insanitary conditions requisite for its production."

A remarkable phenomenon is being at present exhibited (naturally for lucre) in Berlin, viz.: Otto Poehler, of Brunswick city, a child of less than two years of age, who is able to read various kinds of type. This is not a swindle, but plain truth. The boy learned to speak very early, we are informed by the father, a reputable butcher of the town, and when hardly a year old he began almost of his own accord to learn to read. He used to get the headings to the illustrations in books and on pictures read to him, and very quickly remembered the meaning of the printed characters; then, when a word with which he was acquainted was named he would look to find it in his books. Gradually he began to spell other words that he did not already know by hearing, and showed great curiosity to make out the meaning of all printed matter that came to his notice, placards, street signs, titles of books in shop windows, etc. He has now attained a remarkable proficiency. In reading he does not pick up one letter after another, as school children do, but takes in a general impression of the whole word-picture at once, almost the same as any one used to reading does. It will be interesting to observe the further career of this youthful prodigy. Very likely, though, his future development will be more or less impeded by the unusual strain of intellect to which he is now subjected.

An interesting legal controversy arose the other day in connection with one of the Hamburg hospitals. A child had been admitted suffering from tuberculous osteo-myelitis of the foot, for which, after several other remedies had proved ineffectual, resection appeared necessary. The father of the child, however, after much wavering, said that he would rather remove her from the hospital. As he let several days go by without doing so, and had not seemed in reality so much opposed to the operation, the surgeon in charge, Dr. Waitz, determined to operate, hoping to obtain the necessary acquiescence afterwards. On the day of the operation the father returned, but as the child was already anesthetised, he was told it was too late now. At first he made no objections, but several months later when the child was in excellent health, after a secondary amputation performed at the same hospital and with his complete consent, he suddenly entered proceedings against Dr. Waitz, on the plea of injuries and mutilation of the limb having been done to the child. In the first court he was unsuccessful, but on appeal he obtained a decision in his favor. A great deal of discussion has naturally arisen on the subject. The weak point for the lawyers in this case is that the decision bases on a paragraph regarding injuries wilfully inflicted by means of instruments, especially knives, etc. Now, it is quite obvious that it is utterly absurd to class a surgical operation as a corporeal injury, especially when, as in this case, the result has been a positive gain to the patient, but no surgeon has the right to cure any one against his will, or against the will of his legal guardian. Evidently German law is somewhat defective in this point, and in any case it behooves surgeons not to let themselves be carried away by any *furor chirurgicus*.

Another peculiar case occurred lately in Gera, and has not yet been definitely decided. A gentleman who had suffered for some time from toothache consulted a dentist, and on his advice consented to have the offending molar extracted. This was skilfully effected, not without some trouble, for the tooth proved to be a perfect monster in size, with roots measuring as much as two centimeters. The dentist was naturally desirous of preserving such a trophy, and, although the patient claimed the tooth as his property, refused to part with it. An action was accordingly commenced on the charge of defraudation, the defendant claiming he acted by the right of a time-honored custom, and that the tooth on being removed was a *res nullius*, and belonged to the first who took possession. I am afraid this will prove quite a difficult quibble to settle.

It is a common reproach to the Germans that we are too apt to be led estray from the paths of common sense by theories and dogmas. This was especially true of the application of antiseptics to obstetrical practice. Since Ignatius Semmelweiss (to whom a well merited tribute of gratitude was paid at the recent meeting at Buda Pesth) showed that puerperal fever is due to infection by external agents, the tide of public opinion amongst obstetricians has even overswept the mark which that pioneer labored to attain. When bacteriologists had demonstrated that pathogenic germs are often to be found in the genital tract of apparently healthy women, it seemed as if there was to be no limit to the attempts made to sterilize these organs externally and internally. In the Handbook of Midwives, edited by Leopold, of Dresden, instructions are given to flush the vagina repeatedly during labor; and a number of other rules are laid down, which will no doubt prove unwelcome to the patient and unpleasant, and even impossible for the midwife to carry out strictly. In contrast to all this, it is exceedingly gratifying to read the reports published by Dr. Mermann on the manner of proceeding at the Lying-in-Hospital at Mannheim. For several years past his plan has been to avoid all internal disinfection of the parturient canal, and only to lay weight on perfect asepsis of the surgeon's or midwife's hands and instruments. His publications comprise 1,300 cases; among the first hundred he had one death from sepsis, the patient having brought the infection with her from without, and one from cancer of the stomach. Among the last 1,200 he had one death from rupture of the uterus, and one from tuberculosis,, but none at all from sepsis. These observations are evidently of the greatest value and give a broad hint as to what to do and what not to do in cases of labor.

German women are uniformly delivered in the dorsal position, and it seems never to occur to them or their medical attendants to try any other posture. Dr. Mensinga, of Flensburg, in Holstein, calls attention to the following experience: Having occasion to perform podalic version in a woman with a somewhat narrow vagina, he found that by placing her in a prone position, with the thorax and the upper part of the abdomen resting on a pillow, he could very easily grasp the fetal knees, which it had before been quite impossible for him to reach. Version was then easy to perform and the fetus was extracted readily. In fact, Dr. Mensinga says the condition of the perineum up to the anus during the passage of the child's head, can be observed by this method with an accuracy of which he had before had no idea, although, as I may mention, in parenthesis, he is not by any means a young man, but has been engaged a lifetime in gynecological practice.

Dr. Mensinga is the author of some monographs on optional sterility, in which he advocates the insertion of an occlusive pessary of gutta percha into the vagina, where it may remain for any length of time, only being removed during menstruation. Of late years several physicians have directed their attention to this subject, and various methods have been proposed, but to judge from the advertisements of the instrument makers, Mensinga's devise seems to be the one most generally adopted. The question is a highly delicate one, and no doubt has a decidedly immoral aspect, as witness the following case: A young woman had been persuaded by her lover to let him insert one of these pessaries for the purpose of preventing unwelcome results from their illicit intercourse. Some weeks later she began to suffer from urinary trouble, and on admission to the hospital it was found that the pessary had been forced up the urethra into the bladder, where it had become incrusted with concrements, rendering lithotomy necessary. Meanwhile, it is interesting to note, the dreaded conception had not been avoided. Apart from such cases, however, Mensinga shows, in his writings, that there are many married women for whom conception means little short of death, and for such the invention may be of the greatest value. Moralists may object to the whole idea, but when reading these essays, one feels convinced that this is a lesser evil than measures otherwise resorted to, and also than the procreation, perhaps, of mentally and bodily defective issue.

October 5, 1894.

REVIEWS AND NOTICES.

Mechanical Aids in the Treatment of Chronic Forms of Disease. By Geo. H. Taylor, M.D., New York: George W. Rodger, pp. 110.

This pamphlet is in five chapters, the first two describing and explaining the action of several mechanical devices for relieving pelvic affections and for developing the chest, or correcting thoracic asymmetry. The rest are concerned with the principles, varieties and adaptations of massage. The first chapter on the mechanical treatment of pelvic affections is very interesting and instructive. In certain forms of disease, the mechanical treatment must be recognized as almost the only rational resource. The marked success attending mechanical treatment, both where privately prescribed and in the various institutions devoted to the subject, should impress practitioners with the importance of knowing its scope and therapeutic value. Dr. Taylor's pamphlet explains the subject scientifically and carefully. It reveals much thought and many new ideas, and well repays the perusal.

A Manual of Instruction in the Principles of Prompt Aid to the Injured, Including a Chapter on Hygiene and the Drill Regulations for the Hospital Corps, U. S. A.; Designed for Military and Civil Use. By Alvah H. Doty, M.D., Major and Surgeon Ninth Regiment, N. G. S. N. Y.; late attending Surgeon to Bellevue Hospital Dispensary, New York. Second edition, revised and enlarged. New York: D. Appleton & Co. pp. xvi, 304.

This work is probably the best manual obtainable covering the ground of first aid to the injured. The appearance of a second edition shows that the work is appreciated. It is neatly bound, plainly printed and well and profusely illustrated. Following the lines of the ambulance associations in Glasgow and London, there seems to be an awakening interest in emergency work in the larger cities of this country, and there is certainly an increasing demand among the laity for knowledge of what to do in emergency. In the present work the subject is taken up systematically, giving first an outline of the construction of the human body and the functions of the different organs. Then the description and treatment of the various emergencies are given, and finally, as a matter of considerable interest and importance, the drill regulations for the hospital corps, U. S. Army, are given in full.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held October 2d, the following were granted certificates to practice medicine in this State:

C. F. Burgess, Mendocino City; Cooper Medical College, Cal., Dec. 7, 1893.
Edwin Eugene Endicott, Stockton; Kentucky School of Med., Ky., June 21, 1894.
Antonio R. Gomez, Los Angeles; Central Univ., Madrid, Spain, Sept. 11, 1874.
Nat. Green, Watsonville; Med. Dept. Vanderbilt Univ. Tenn., March 1, 1893.
E. W. Hanlon, Los Angeles; Coll. Phys. and Surg. New York, June 14, 1893.
Marinos P. Hus, Oakland; Univ. of Leyden, Holland, Oct. 28, 1875.
Alfred G. Kelleher, Ukiah; Cooper Med. Col. Cal., Dec. 7, 1893.
William A. Knowles, San Francisco; Med. Coll. of the Pacific, Cal., Nov. 5, 1878.
Orrin T. Maxson, San Diego; Rush Med. Coll. Ill., Feb. 22, 1849.
Joseph A. Miller, San Francisco; Kentucky School of Med., Ky., June 26, 1885.
Francis R. Musser, Oakland; Med. Dept. Univ. Pennsylvania, May 1, 1885.
Marion M. Nichols, Hopland; Med. Dept. Arkansas Ind. Inst. Ark., March 2, 1887. Marion Sims, Med. Coll. Mo., March 20, 1894.
John Henry Ryan, Los Angeles; Bellevue Hosp. Med. Coll. N. Y., March 1, 1872.
August H. Sante, San Francisco; Barnes Med. Coll. Mo., March 20, 1894.
Benjamin O. Webb, Los Angeles; Rush Med. Coll. Ill., Feb. 26, 1878.
Lindley C. Wright, Visalia; Med. Dept. Vanderbilt Univ., Tenn., March 26, 1894.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Div. Pacific), from September 20, to October 21, 1894.

Captain Walter D. McCaw, assistant sugeon, is relieved from temporary duty at the Presidio of San Francisco and will proceed without delay to the Cavalry Camp, Yosemite National Park, and report to the commanding officer for duty until further orders. Par. 2, S. O. 117, Dept. of California, September 24,'94.

First-Lieutenant Charles Willcox, assistant surgeon, and two privates of the hospital corps, to be designated by the post surgeon, Presidio of San Francisco, will accompany Light Batteries D and F, Fifth Artillery, on a practice march from the Presidio of San Francisco to Clear Lake, Cal., on October 4. Par. 1, S. O. 121, Dept. of California, October 2,'94.

Leave of absence for ten days is granted Lieutenant-Colonel J. V. D. Middleton, Deputy Surgeon-General. Par. 1, S. O. 122, Dept. of California, October 4,'94.

Captain William L. Kneedler, assistant surgeon, will stand relieved from performing the duties of attending surgeon in this city, upon the return of Lieutenant Colonel Johnson V. D. Middleton, Deputy Surgeon-General, from the leave of absence granted him in Par. 2, S. O. No 122, C. S. from these headquarters. Thereafter, and until further orders, Lieutenant Colonel Middleton will perform the duties of attending surgeon in addition to his duties as medical director of the department. Par. 6, S. O. 122, Dept. of California, October 4,'94.

Captain William L. Kneedler, assistant surgeon, is detailed as examiner of recruits in this city, in addition to his present duties Par. 7, S. O. 122, Dept. of California, October 4,'94.

The journeys performed by First-Lieutenant E. B. Frick, assistant surgeon, from Fort Townsend to Seattle, Wash., and return, on July 10th, 28th, August 9th, 30th, September 15th and 20th, 1894, on public business in connection with the examination of recruits, in obedience to instructions from these headquarters dated April 5th, 1892, are confirmed. Par. 2, S. O. 168, Dept. of the Columbia, October 9,'94.

Leave of absence for twenty days is granted First-Lieutenant Charles E. B. Flagg, assistant surgeon. Par. 1, S. O. 127, Dept. of California, October 15,'94.

The leave of absence for ten days granted Lieutenant-Colonel J. V. D. Middleton, Deputy Surgeon-General, in Par. 2, S. O. No. 122, C. S., from these headquarters, is extended two days. Par. 1, S. O 130, Dept. of California, October 18,94.

Captain Edward C. Carter, assistant surgeon, is relieved from duty at Vancouver Barracks, Washington, and ordered to Fort Buford, South Dakota, for duty, relieving Captain Aaron H. Appel, assistant surgeon.

First-Lieutenant Benjamin Brooke, assistant surgeon, is relieved from duty at Camp Pilot, Butte, Wyoming, and ordered to Fort Canby, Washington, for duty.

First-Lieutenant Thomas N. Raymond, assistant surgeon, is relieved from duty at Fort Canby, Washington, and ordered to Fort Riley, Kansas, for duty.

Captain John L. Phillips, assistant surgeon, ordered to report in person to commanding officer Fort Walla Walla, Washington, for duty at that station, the assignment to duty at Fort McKinney, Wyoming, being revoked.

Major M. W. Wood, surgeon, on being relieved from duty at Boston, Massachusetts, will proceed to take station at Boise Barracks, Idaho, to relieve Captain William Stephenson, assistant surgeon. Captain Stephenson, on being relieved, will proceed to take station at Vancouver Barracks, Washington.

Upon abandonment of Fort Marcy, N. M., Major James P. Kimball, surgeon, is ordered to Fort Wingate, N. M., for duty.

Upon the arrival of Major Kimball at Fort Wingate, Captain C. N. B. McCauley, assistant surgeon, will take station at Fort Apache, Arizona, for duty, relieving Lieutenant M. W. Ireland, assistant surgeon.

Lieutenant Ireland, on being thus relieved, will take station at Fort Stanton, N. M., relieving First Lieutenant F. R. Keefer, assistant surgeon.

Upon abandonment of Mount Vernon Barracks, Alabama, Major Curtis E. Mann, surgeon, is ordered to Benicia Barracks, Cal., relieving Captain Ogden Rafferty, assistant surgeon.

Captain Rafferty, on being relieved by Major Mann, is ordered to Presidio of San Francisco, Cal., for duty.

First-Lieutenant Charles E. B. Flagg, assistant surgeon, is relieved from duty at Presidio of San Francisco, Cal., and ordered to Angel Island, Cal., for duty.

Major Van Buren Hubbard, surgeon, is relieved from duty at Fort Spokane, Washington, and ordered to Fort McPherson, Ga., for duty at that station.

Upon abandonment of Fort Bowie, Arizona, Captain Jefferson D. Poindexter, assistant surgeon, is ordered to Fort Riley, Kansas, for duty.

ITEMS.

Dr. A. Abrams, of San Francisco, who has been spending several months in Europe, expects to reach home November 25th, when he will resume his practice.